A qualitative case study exploring the role of occupational health physiotherapy from the perspectives of different stakeholders

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ABSTRACT

Introduction: Over the past decade, the role of occupational health physiotherapy has gained recognition as a profession that can be embedded within occupational health departments. In response, the Association of Chartered Physiotherapists in Occupational Health and Ergonomics developed an Occupational Health Framework for Physiotherapists based on the expert opinions of physiotherapists. There is also a dearth of literature relating to the role of occupational health physiotherapy and no research exploring this role from the perspectives of stakeholders outside the physiotherapy profession. This gap in the evidence base has led to the overall aim of the current project, which was to explore the role of occupational health physiotherapy from the perspectives of different relevant stakeholders.

Methodology: A qualitative, interpretative, case study methodology was used to explore the role of occupational health physiotherapy from the perspectives of different stakeholders. Three different stakeholder groups, namely occupational health clinicians, workforce managers and clients, were selected across two cases (NHS hospitals). The two cases were strategically chosen to allow for a dual exploration of the role of occupational health physiotherapy both in a tangible sense, where occupational health physiotherapy was already embedded in an occupational health department, and in a hypothetical sense by exploring its potential role. Data were collected through 28 semi-structured interviews and were analysed using the framework analysis technique.

Findings: Stakeholders across both NHS hospitals were supportive of the role of occupational health physiotherapists as integral to occupational health departments. The new components for the role of occupational health physiotherapy that emerged from the interviews were agent to organisation, impartial approach, direct access care, expert opinion, role identity, specific vocational rehabilitation and health training. The sub-components that were partially or fully unique to the role of occupational health physiotherapist were also identified. All components informed the development of a multiple-perspective conceptual

framework. A synthesis of the salient and dynamic issues of the conceptual framework identified three core concepts, namely risk work, professional identity, and coaching.

Conclusions: This project has made an original contribution to knowledge by exploring the role of occupational health physiotherapy from the perspectives of different stakeholders in order to inform the development of a new multiple-perspective conceptual framework to advance the practice of occupational health physiotherapists. Although this conceptual framework cannot guarantee the success of the proposed role, it can assist occupational health physiotherapists in negotiating new and advanced working practices and potentially support the role embed within the mandate of an occupational health service. A logical progression to this project is action research and it is recommended that a future project using action research is undertaken in order to evaluate the impact of the multiple-perspective conceptual framework through implementation with organisations embracing a range of occupational health services and occupational health physiotherapy models.

Keywords: physiotherapy; occupational health; role; advanced practice; stakeholders; conceptual framework

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CHAPTER ONE: INTRODUCTION

1.1 Introduction to chapter

This introductory chapter begins with a description of the personal context that has led to this project inquiry. This is followed by the professional context of the project and the rationale for exploring this topic to justify how the project makes an original contribution to knowledge and advances the practice of occupational health physiotherapists. The overall aim, specific objectives, research question and project outcome are presented and the chapter concludes with an overview of the project layout.

1.2 Personal context of the project

I begin by presenting a personal reflection on the critical incidents in my life that have resulted in this project inquiry. In doing so, I share with the reader my personal space by exposing my historical, cultural and philosophical views of the world in order to establish the premises upon which my project is based.

I view the world as a connection between the social, political and cultural aspects that include race, class and gender. This perspective has been influenced by the fact that I grew up in South Africa during the 1980s and 1990s as a middle-class male of Asian origin. During this time, the situation in South Africa was defined by racial strife compounded with social and political changes.

The effects of growing up as an Asian male in South Africa during the Apartheid era have always been embedded into my moral fibre. During my years in a racially segregated secondary school and later at university, I became deeply aware of the injustices that were playing out through Apartheid, and found myself being constantly drawn into campaigns that levelled resistance against issues related to race and social injustice. Throughout my training as a physiotherapy student and into my early years as a qualified physiotherapist, I became

acutely aware of how people with health issues were marginalised and disadvantaged because of the laws of segregation. The dehumanising nature of Apartheid together with the social injustice associated with race and class ordering, have influenced my stance in the world and the perspective it brings to this project. My way of thinking, consequently, begins with considering practical issues and a focus on what is appropriate in a particular context. Furthermore, I seek to explore multiple viewpoints on an issue as opposed to one traditional representation.

My interest in occupational health physiotherapy began in 2004 when I was elected as the Health and Safety Representative for the Physiotherapy Department based in a public sector tertiary care hospital in South Africa. It was during this time that I started to understand how improving employee health and wellbeing improved their attendance at work, their motivation to be at work and their productivity. As my interest in this area grew, I registered for a Master of Science (MSc) degree, which involved researching occupational health injuries and the surveillance of workers at a beverage manufacturing company. The findings of my MSc project highlighted that while the effects of occupational injuries were well understood in organisations, the role of an occupational health physiotherapist beyond assessment and treatment was poorly understood by the physiotherapy profession.

A few years later, I was successfully interviewed for the post of a Senior Occupational Health Physiotherapist at a National Health Service (NHS) hospital in the United Kingdom (UK). It was during my time in this position that I began to understand the lack of knowledge about the role of occupational health physiotherapy from stakeholders outside the physiotherapy profession and the influence this had on the integration and subsequent employment of physiotherapists in occupational health departments. Therefore, in order to pursue this topic in more detail, I made the decision to register for a doctoral degree.

My interest in this project has developed out of previous research, critical incidents in my life and, most importantly, my professional experiences. The process of bringing this project to life, which stems as far back as my first physiotherapy post in rural Southern Africa, has brought a deep sense of purpose and career validation. It is my hope that this project will stimulate discussion and debate and inspire other physiotherapists to explore their role from the perspective of different stakeholders.

1.3 Professional context of the project

I currently work at an NHS Foundation hospital in London. My position at the hospital is a Senior Occupational Health Physiotherapist and I have held this post for more than ten years. My role, as the post title suggests, is to provide a highly specialised physiotherapy service for staff with a wide range of physical health problems. My primary role is to perform highly specialised assessments for staff presenting with physical health problems and to formulate a clinical diagnosis and treatment plan. The remit of my role also extends to undertaking workplace and ergonomic assessments, providing reports to managers regarding fitness-to-work recommendations and attending case management meetings. In addition, I also participate in leading and developing the occupational health physiotherapy service by initiating and managing relevant work-based projects. I work as an autonomous clinician within a multidisciplinary occupational health team that consists of occupational health physicians, occupational health nurses and a clinical psychologist. My work experience and job remit meant that I was appropriately qualified and strategically positioned to undertake this project.

As an NHS employee, and in the context of my role as a Senior Occupational Health Physiotherapist, I was deeply concerned about a seeming lack of commitment by the NHS to dealing with the issues of workplace health and wellbeing services for NHS staff. This concern was a key driver for undertaking this project because I hoped that through completion of it, the NHS would see that occupational health physiotherapists can offer an

advanced practice role that is responsive to the health and wellbeing needs of the NHS workforce and hopefully have no reason (or hesitation) not to implement it within their organisation. Furthermore, in doing so, it might lead to the beginnings of new ways to address workplace health and wellbeing services available to NHS staff.

In the context of professional practice, although occupational health physiotherapy as a distinct discipline has been practiced in the UK since the 1940s and evolved over the last few decades (Daley and Miller, 2013), it was only in the past decade that the role of occupational health physiotherapy has gained recognition as a profession that can be embedded within occupational health departments, mainly because organisations, employees and healthcare professionals have started to gain insight into the benefits of integrated care for staff (Black, 2008; Boorman, 2009). In response to this recognition, the Association of Chartered Physiotherapists in Occupational Health and Ergonomics (ACPOHE) developed an Occupational Health Framework for Physiotherapists (ACPOHE, 2012a). This framework documented the role of occupational health physiotherapists as autonomous practitioners with professional knowledge and skills, together with abilities in interaction, decision making and problem solving related to the health and wellbeing needs of the workforce in order to deliver personalised interventions that maximise an employee's performance at work (ACPOHE, 2012a). In addition, the framework highlighted the important and complex relationship between occupational health physiotherapists, the employee, the employer and other members of the occupational health team, yet the development of the framework was limited to the expert opinions of physiotherapists (ACPOHE, 2012a).

The available literature on occupational health physiotherapy has suggested a reduced role to manage a musculoskeletal caseload (Addley *et al* 2010; Hoenich, 1997; Pizzari and Davidson, 2013; Phillips *et al* 2012) and there are no studies that have explored this role with stakeholders from outside the physiotherapy profession. This omission in the literature clearly represents a gap in knowledge because it is not known how stakeholders from

outside the physiotherapy profession perceive the role of occupational health physiotherapy or what services they expect occupational health physiotherapy to provide or whether they perceive occupational health physiotherapy as making a contribution to occupational health services. This information is critical for the physiotherapy profession in order to ensure that there is a collective agreement about the role of occupational health physiotherapy and to inform the development of a multiple-perspective conceptual framework to advance the practice of occupational health physiotherapists.

Different stakeholders may vary in their appreciation of the contribution occupational health physiotherapy can make to an occupational health service. If, for example, stakeholders perceive that the costs of providing occupational health physiotherapy care outweighs the gains, then some stakeholders could perceive the role of occupational health physiotherapy as ineffective and not support or commission its provision. Traditionally, physiotherapists have demonstrated their efficacy by measuring the outcomes of their intervention in terms of changes in functional abilities and symptomology (Scott and Grimmer, 1995). However, it is unclear whether stakeholders from outside the physiotherapy profession are able to relate to or understand the terminology and clinical concepts underlying physiotherapeutic measures of outcomes, and whether or not the traditional approaches used by physiotherapists to demonstrate their efficacy are appropriate for occupational health services. Furthermore, through collaboration with different stakeholders, previously unknown occupational health physiotherapy needs can surface and known needs can be improved and refined. The findings of this project have the potential to advance the way in which occupational health physiotherapy is practiced in occupational health departments.

This project, therefore, makes an original contribution to knowledge by being the first to explore the role of occupational health physiotherapy from the perspectives of different stakeholders in order to inform the development of a multiple-perspective conceptual framework to advance the practice of occupational health physiotherapists.

1.4 Overall aim, specific objectives, research question and project outcome

1.4.1 Overall aim

The overall aim of the project is to explore the role of occupational health physiotherapy from the perspectives of different stakeholders (namely, traditional occupational health clinicians, workforce managers and clients).

This approach ensures that the voices of different stakeholders are heard and considered with a clear remit of moving away from professional isolation (that is, a physiotherapy-only perspective) and into the real-world interrelationships with work colleagues, commissioners and clients in order to formulate a collective agreement on the role of occupational health physiotherapy and contribute to the growing evidence in this niche area.

1.4.2 Specific objectives

This project will explore the role of occupational health physiotherapy from the perspectives of three different stakeholder groups, namely occupational health clinicians, workforce managers and clients. The selection of these stakeholder groups were informed by Grimmer *et al* (2000) who reported them as the main stakeholders in physiotherapy practice. In the context of this project, occupational health clinicians, such as occupational health nurses and doctors, are traditional members of the occupational health team; workforce managers are responsible for commissioning and funding the roles within an occupational health department; and clients are the recipients of occupational health care. The project will explore this process with the following specific objectives, which were informed not by specific literature but rather from my professional experiences of working as an occupational health physiotherapist in a multidisciplinary occupational health team, namely:

(a) To explore how different stakeholders perceive the characterisations of the role of occupational health physiotherapy;

(b) To explore what different stakeholders expect the role of occupational health physiotherapy to provide; and

(c) To explore the preconceptions of different stakeholders of the contribution of occupational health physiotherapy to occupational health services.

1.4.3 Research question

What is the role of occupational health physiotherapy within the NHS from the perspectives of different stakeholders (namely, occupational health clinicians, workforce managers and clients)?

1.4.4 Project outcome

The intended outcome of the project will be the development of a multiple-perspective conceptual framework in order to advance the practice of occupational health physiotherapists.

1.5 Layout of the project

Chapter 1 is the introductory chapter and explains the personal and professional perspective of the project. The project's overall aim, specific objectives, research question and outcome and clearly outlined.

Chapter 2 explores the background and context of the project. The historical perspectives of occupational health physiotherapy, including the legal and policy frameworks, are addressed. The conceptual framework of occupational health and physiotherapy is also discussed.

Chapter 3 reviews the ACPOHE (2012a) Framework, the relevant literature pertaining to the role of occupational health physiotherapy and describes the development of the theoretical framework. All relevant studies on occupational health physiotherapy are critiqued and the perceived gaps, weaknesses and limitations in the evidence base are identified. This chapter reveals a lack of empirical literature in occupational health physiotherapy.

Chapter 4 covers the project's methodology to achieve its overall aim and objectives and inform the research question. The rationale for a qualitative, interpretative, case study research methodology is explained. A detailed account of the data collection and analysis processes, research trustworthiness and the ethical and research governance approvals is provided.

Chapter 5 presents the findings and discussion of the project in relation to the ACPOHE (2012a) Framework and literature. A holistic analysis of the role of occupational health physiotherapy from the perspectives of occupational health clinicians, workforce managers and clients are presented.

Chapter 6 discusses the development and core concepts of the multiple-perspective conceptual framework for advancing the practice of occupational health physiotherapists, pertinent recommendations and the conclusion. The potential use and implications of the conceptual framework in the practice of occupational health physiotherapy is also discussed. Furthermore, this chapter discusses what occupational health physiotherapists can offer uniquely to occupational health services, the strengths and weaknesses of the project and advises on future research directions in occupational health physiotherapy. Dissemination strategies are explored.

Chapter 7 concludes the project with a discussion on reflection and reflexivity and the impact of this project in the workplace.

CHAPTER TWO: BACKGROUND AND CONTEXT

2.1 Introduction

Physiotherapy's strong commitment towards health and wellbeing has allowed the profession to branch out into a variety of clinical streams (Higgs *et al* 2001). Despite progressive attempts to embed physiotherapy into occupational health departments, research into the role of occupational health physiotherapy, the central focus of this project, is scarce. This chapter will set out the conceptual framework of the project by focusing on relevant issues related to occupational health and physiotherapy.

2.2 Healthcare in the United Kingdom

Healthcare in the UK is mainly provided by the public health service, known as the NHS. The NHS Act (1946) came into effect on 5th July 1948 and is free at the point of use and paid for from general taxation, although there are charges associated with some aspects of care (Coulter, 2005). The public service dominates healthcare provision in the UK, however private healthcare and a wide variety of alternative and complementary treatments are available for those willing to pay (Coulter, 2005). Private healthcare is paid for largely by private insurance, but it is used by less than 8% of the population and generally as an addition to NHS services (Coulter, 2005).

The NHS has undergone major changes in its core structure since the introduction of the Health and Social Care Act (2012) (Health and Social Care Information Centre, 2012). Organisations such as Primary Care Trusts (PCTs) and Strategic Health Authorities (SHAs) were abolished and new organisations, such as Clinical Commissioning Groups (CCGs), were established (Health and Social Care Information Centre, 2012). By 2014, NHS services opened up to competition from providers that met NHS standards on price, quality and safety, with a new regulator known as Monitor (Hampton, 2012). In addition, local authorities were given budgets for public health. Health and wellbeing boards were formed to

encourage integrated working relationships between commissioners of services across health and social care involving democratically elected representatives from local communities (Hampton, 2012). In particular, Hampton (2012) stated that local authorities are required to work more closely with community groups and agencies, using their knowledge of local communities to tackle health and social care challenges.

The Secretary of State for Health holds the ultimate responsibility for the provision of a comprehensive health service in England and to ensure that the entire service works together to respond to the priorities of communities and meet the needs of patients (Health and Social Care Information Centre, 2012). The Department of Health (DH) is responsible for strategic leadership of both the health and social care services, but it is no longer the headquarters of the NHS and does not directly manage any NHS organisation (Health and Social Care Information Centre, 2012). CCGs have taken on many of the functions of PCTs and, in addition, some functions previously undertaken by the Department of Health.

All General Practitioner (GP) practices now belong to a CCG and these groups may also include other health professionals, such as nurses and allied health professionals. CCGs can commission any service provider that meets NHS standards and these can be NHS hospitals, social enterprises, charities or private sector providers (Health and Social Care Information Centre, 2012). However, CCGs must be assured of the quality of services they commission, taking into account both National Institute for Health and Care Excellence (NICE) guidelines and the Care Quality Commission's (CQC) data on service providers (Health and Social Care Information Centre, 2012). Both the NHS and CCGs have a duty to involve their patients, carers and the public in decisions regarding the services they commission.

Following the abolition of the SHAs, the NHS Trust Development Authority (TDA) became responsible for overseeing the performance, management and governance of NHS Trusts,

including clinical quality, while also managing their progress towards foundation status (Health and Social Care Information Centre, 2012). The TDA has a range of powers, from appointing chairs and non-executive directors, to requiring a Trust to seek external advice (Health and Social Care Information Centre, 2012).

The private healthcare sector provides a reduced set of treatments compare to those available from the NHS. Private healthcare is sometimes funded by employers through medical insurance as part of a benefits package for employees. Private healthcare insurers also market services directly to the public and most private healthcare is for specialist referrals with most members retaining their NHS GP as a point of first contact (Doyle and Bull, 2000). Some hospital groups provide insurance plans (for example, British United Provident Association (BUPA)) and some insurance companies have deals with particular private hospital groups (Doyle and Bull, 2000). Some private sector patients can be treated in the private wings of NHS hospitals, in which case the patient's insurance company is billed (Doyle and Bull, 2000).

2.3 Occupational health in the United Kingdom

Occupational health is a multidisciplinary speciality concerned with fostering a safe and healthy work environment (Faculty of Occupational Medicine, 2010). The provision of occupational health is important for moral, legal and financial reasons (Faculty of Occupational Medicine, 2010). According to the World Health Organisation (WHO, 1995) occupational health should aim for the promotion and maintenance of the highest degree of physical, mental and social wellbeing of workers across all occupations. Furthermore, WHO (1995) reported that the main focus for occupational health is the maintenance and promotion of employees' health and working capacity as well as the development of working cultures in a direction that supports health and safety, and in doing so, also promotes a positive social climate that may enhance productivity. The concept of organisational culture is intended in this context to indicate a reflection of the essential value systems adopted by

the organisation, and such a culture should be seen in practice within the management hierarchy (WHO, 1995).

In the UK, health and safety legislation is drawn up and enforced by the Health and Safety Executive (HSE) and local authorities under the Health and Safety at Work Act (1974) (HSE, 2009a). This Act promotes a systematic management of health and safety through a six-step process, namely: (a) policy; (b) organising; (c) planning; (d) implementing; (e) measuring performance; and (f) reviewing performance (HSE, 2009a). The role of the HSE is to ensure that these components are all linked to an audit process that provides for evaluation and a feedback loop to improve performance (HSE, 2012). This systematic approach permits flexibility necessary for robust business planning according to risk priorities and in the UK the regulatory trend is away from prescriptive rules and towards risk assessment (HSE, 2012).

Historically, there has been a divide between mainstream healthcare and occupational health (Department of Work and Pensions, 2008). In the UK, the government began to take a renewed interest in occupational health around 2006/7 during the Blair/Brown Labour era when Lord Darzi was commissioned to review the NHS and its workforce. This resulted in the 'High Quality Workforce' Report, which advocated for a workforce that reflected the needs of patients (Department of Health, 2008a). Also in 2008, the Dame Carol Black Report (2008) was published which focussed on Britain's working age population. The Black Report (2008) was the first to advocate for a complete restructuring of occupational health services. Some of the recommendations included a change to the welfare services so that, for the first time, occupational health services could be offered to those on incapacity benefits; the introduction of the fit note as opposed to the previous sick note; the commissioning of a national fit-for-work service; and a quality accreditation scheme designed for all occupational health services to promote safe and clear standards of practice (Black, 2008). The introduction of the fit note was initially met with trepidation by GPs, however Paton (2011) reported that 68% of GPs now support the concept of certifying fitness for work and that the

fit note has encouraged dialogue between them and their patients with respect to returning to work.

In 2009, Boorman's Report, which was commissioned by the Department of Health to review the health and wellbeing of the NHS workforce, was published. Boorman's Report (2009) took Black's (2008) recommendations and applied them to the NHS workforce. Boorman's Report (2009) recommended that organisations should provide staff health and wellbeing training to all managers and provide early interventions for musculoskeletal and common mental health problems, for which access to physiotherapy and cognitive behavioural therapy were listed as the preferred interventions. In addition, Boorman's Report (2009) recommended that organisations should have a health and wellbeing policy in place and review the structure of their occupational health services in order to determine if they were suitable to the needs of the local NHS workforce. In March 2013, an audit by the Chartered Society of Physiotherapy (CSP) on workplace health and wellbeing services for NHS staff found that NHS hospitals had not fully implemented, and in some cases, had not even attempted to implement Boorman's recommendations (CSP, 2013).

In December 2010, the 'Safe Effective Quality Occupational Health Service' (SEQOHS) accreditation standards were launched. The accreditation standards were set by a wide range of stakeholders, such as the Department of Health; the Faculty of Occupational Medicine (FOM); and the Royal College of Nursing (RCN), and at the present time, SEQOHS remains a voluntary activity for occupational health services (SEQOHS, 2013). As part of a re-launch of the SEQOHS standards, the scheme opened to occupational health physiotherapy services on 01st May 2015 (SEQOHS, 2015). This decision followed a successful pilot scheme run in collaboration with ACPOHE, which tested the applicability of the SEQOHS standards and underpinning processes against occupational health physiotherapy services (SEQOHS, 2015). This was viewed as a great opportunity for

occupational health physiotherapy services to work towards an established and respected mark of accreditation (SEQOHS, 2015).

In August 2014, the National School of Occupational Health was established. The purpose of this new initiative was to raise the standards of training for healthcare professions associated with the delivery of occupational health. In particular, it was aimed at developing and maintaining training and education standards in occupational medicine and to explore the development of multi-professional training for occupational health nurses, physiotherapists and other disciplines (Faculty of Occupational Medicine, 2015). In January 2015, The National Fit-for-Work Service was introduced as a government-funded scheme for all employees, irrespective of their employer, who are off work for more than four weeks who require an assessment if their GP recommends it (Department of Work and Pensions, 2015).

The coalition government, however, had different ideas about the NHS, which ultimately impacted on the provision of occupational health services. The most significant change by the coalition government to the NHS was the introduction of the Health and Social Care Act, which gained royal accent in March 2012 (Her Majesty's Parliament, 2012) and remains one the most controversial Acts in NHS history. This Act proposed the introduction of the ‘any qualified providers’ framework, which has become highly politicised with the coalition government favouring the introduction of providers from outside the NHS. This Act by the coalition government established GP consortiums as the fund-holders who now had the power to purchase services (Her Majesty's Parliament, 2012). As NHS hospital policies and practices are shaped by central government legislation, it means that NHS hospitals are now free to provide occupational health services either as an in-house department or as an outsourced service.

The reforms of the coalition government led to a review of occupational health services across England. In July 2011, the Department of Health published the ‘Healthy Staff, Better

Care for Patients – Realignment of Occupational Health Services to NHS England' Review (Department of Health, 2011a). This review recommended the minimum service levels for occupational health services; occupational health data collection; and engagement and information sharing with other occupational health services (Department of Health, 2011a). The need for the realignment of occupational health services to improve quality and service delivery resulted in the Department of Health publishing the 'NHS Health and Wellbeing Improvement Framework', which advocated for improved occupational health service quality, innovation and efficiency (Department of Health, 2011b).

In April 2012, at the height of the NHS reforms, NHS employers published two documents, namely 'Commissioning Occupational Health Services' and 'Your Occupational Health Service' (NHS Employers, 2012). 'Commissioning Occupational Health Services' discussed the requirements of staffing, audit and clinical governance, whereas 'Your Occupational Health Service' specified the requirements for SEQOHS accreditation with a list of quality standards (NHS Employers, 2012). In October 2014, the 'NHS Five Year Forward View' was published which set out a vision for the future of the NHS. It had been developed by several partner organisations that deliver and oversee health and social care services (NHS England, 2015). The 'NHS Five Year Forward View' called for a preventative approach in promoting health and wellbeing at work and advocated for the delivery of occupational health to become more mainstream (NHS England, 2015).

In March 2015, the Royal College of Physicians published the 'Work and Wellbeing in the NHS: Why Staff Health Matters to Patient Care' Report (Royal College of Physicians, 2015). This reported stated that health and wellbeing of NHS staff is inextricably linked to the quality of care patients receive, yet only 28 percent of NHS hospitals have a staff health and wellbeing plan in place (Royal College of Physicians, 2015). The report highlighted that high-quality patient care relies on a workforce that is not only sufficiently physically and mentally well to perform their jobs, but also feel valued and supported (Royal College of Physicians,

2015). In addition, the report recommended that organisations should view staff health and wellbeing as an investment into the efficacy of their services rather than an optional extra; enable staff to influence change so that they are empowered to shape their working environment; tackling physical and mental health seriously by providing staff with effective line-management support and early interventions (Royal College of Physicians, 2015).

2.3.1 Service models for occupational health

Historically, occupational health services were not included in the NHS when it was formed in 1948 despite the development of occupational health as a speciality and the health and safety legislation at the time (Torrance and Heron, 2017). The duty to manage workplace risks and hazards, including the provision of health surveillance, rested then, as now, with the employer (Torrance and Heron, 2017). The employer, therefore, has the autonomy to decide the model of occupational health service provision.

There are two main models of occupational health services. With the first model occupational health services can be provided as an in-house service within an organisation, and in the second model occupational health services can be provided as an outsourced service with an external provider.

The in-house occupational health service is usually located on the organisation's premises. The in-house service model is often the choice of large organisations who can afford to employ their own occupational health team. The cost of providing an in-house service is fixed within the organisation's pay structures with limited scope for negotiations. In this model the occupational health physiotherapist is usually employed by the organisation. This model makes it possible for occupational health physiotherapists to be 'close' to the employees and their problems and provides greater opportunities for understanding the work environment, processes and culture. The majority of NHS Trusts have a dedicated physiotherapy department and occupational health services have a choice of employing a

dedicated in-house occupational health physiotherapist with advanced knowledge and training in occupational health practice or refer directly to the Trust's general outpatient physiotherapy department. Pizzari and Davidson (2013) conducted a prospective case-controlled study with 21 clients receiving occupational health physiotherapy versus 21 matched clients receiving outpatient physiotherapy. The occupational health group improved significantly in physical functioning (p=0.00) whereas the control group deteriorated significantly in mental health status (p=0.01) according to the SF-12 scores. The results indicated a significant difference (p=0.00) favouring the occupational health physiotherapy group for returning to usual activities. Furthermore, the occupational health physiotherapy group demonstrated greater change in physical functioning health outcomes over time (that is, at three months (p=0.02) and at six months (p=0.00)). This study demonstrated improved health outcomes with a dedicated in-house occupational health physiotherapy service.

The outsourced service model is usually located outside the organisation and may include a number of separate companies providing occupational health services. This model is usually the choice for smaller and medium sized organisations who cannot afford to employ their own occupational health team. The cost of providing an outsourced service is negotiable as external companies are independent of the organisation and competition between different companies can be fierce which usually drives down the service provision costs. In this model the occupational health physiotherapist may be part of the outsourced company, completely independent by being self-employed, or the provision of physiotherapy could be sourced via referral to the GP, who in turn will refer the client to their local NHS outpatient physiotherapy service. The latter is often criticised because many clients referred to outpatient physiotherapy at their local NHS hospital are frustrated at the long waiting times for physiotherapy treatment in primary care clinics (Watson *et al* 2008). Furthermore, it is more difficult for the occupational health physiotherapist to be 'close' to the employees and their problems, and a thorough understanding of the work environment, processes and culture might also be challenging.

There is no literature on which of the two service models for occupational health are preferred by organisations, however, the Black and Frost Report (2011) 'Health at Work' emphasised the importance of early access to occupational health services to prevent long-term incapacity and absence from work, and raised concern about the detachment and fragmentation of occupational health services from the organisation through the use of multiple outsourced companies.

2.4 Conceptual framework of physiotherapy

2.4.1 Concept of physiotherapy

Physiotherapy is tailored to delivering direct patient care, educating the patient-family unit and other healthcare professions and functioning independently or as a member of a team within the bio-psychosocial model of care. The World Confederation for Physical Therapy (WCPT) conceptualises physiotherapy as a profession providing services to people and populations to develop, maintain and restore maximum functional ability throughout their life spans (WCPT, 2010). The CSP conceptualises physiotherapy as a science-based profession and takes a whole person approach to health and wellbeing, which includes the person's general lifestyle (CSP, 2003). Anderson *et al* (1994) conceptualised physiotherapy as the treatment of disorders with physical agents and methods in order to assist in rehabilitating patients and restore normal function after an illness or injury. Later, Fulton and Else (1997) conceptualised physiotherapy as a profession that optimises a person's level of physical function and takes into consideration the interplay between the physical, psychological, social and vocational domains of function. This latter definition includes vocation as a physiotherapy domain of practice.

2.4.2 The roles in physiotherapy practice

Defining the concept of a role is a difficult endeavour because there has been little agreement on a precise definition (Clifford, 1996). There are, however, variations in terminology which conceptualises a role in physiotherapy within a particular field.

The role of the general physiotherapist requires a scope of practice that has breadth of knowledge and range of skills to treat a large number of conditions (Bennett and Grant, 2004). The role of the advanced practice physiotherapist requires a level of practice that is characterised by a high degree of autonomy, experience and complex decision making and is underpinned by postgraduate qualifications or equivalent experience in core and specific areas of clinical practice (Health Education England, 2017). The advanced practice physiotherapist role is sometimes referred to as specialist physiotherapist (Bennett and Grant, 2004), clinical specialist physiotherapist (Carr and Shepherd, 1996) or extended scope practitioner physiotherapist (Robertson *et al* 2003). The role of the consultant or academic physiotherapist requires considerable depth of professional excellence and experience, lecturing and teaching peers and being able to attract an appropriate level of research funding and fees for consultancy work (Robertson *et al* 2003).

2.4.3 The context of physiotherapy practice

Physiotherapists are often referred to as allied health members within a cluster of other disciplines, for example, occupational therapy, dietetics, speech pathology and social work (Higgs *et al* 2001). Traditionally, the role of physiotherapy involved assessing, diagnosing and treating musculoskeletal, respiratory and neurological disorders in order to promote functional independence and wellbeing (Higgs *et al* 2001). However, the role of the physiotherapist is continually expanding because the skill base of the profession allows for independent clinical reasoning and multidisciplinary working (Dean *et al* 2009).

Physiotherapy is a well-established profession with a role in many healthcare settings, for example, emergency care departments (Anaf and Sheppard, 2007), rehabilitation wards (Wottrich *et al* 2004) and intensive care units (Stiller, 2000). While many of the healthcare professions in each team have similar or overlapping roles, such as between physiotherapy and occupational therapy or doctors becoming rehabilitation specialists, the clinical goals, procedures and service demands require each individual profession to adapt their core skills

to meet the objectives and expectations of that setting (Larsson and Gard, 2006). In particular, clients offer different challenges to healthcare teams by having various expectations for the care they receive and may request different levels of interventions depending on the setting (Larsson and Gard, 2006).

In the UK, the Health and Care Professions Council (HCPC) regulates the physiotherapy profession. These regulates include the standards of training; behaviour; health; and professional skills that physiotherapists must adhere to (HCPC, 2013). Through the basic undergraduate degree training programme, physiotherapists acquire a core set of knowledge in anatomy and physiology; clinical sciences; musculoskeletal, neurological, community and respiratory care; clinical reasoning to make a preliminary clinical diagnosis and research skills (Bithell, 2007). Two other organisations namely the CSP, which acts largely as a professional advocacy body, and the WCPT, of which the UK is a founding member, support and promote the development of physiotherapy in the UK and internationally.

2.4.4 Physiotherapists as first-contact practitioners

From the 1950s to the 1970s the profession of physiotherapy advocated having direct medical supervision in order to guide clinical diagnosis and recommend treatment modalities (Galley, 1976). This was seen as an important step for the physiotherapy profession in aligning itself with the medical fraternity to avoid being considered an alternative health group (Galley, 1976). Prior to the 1970s, there was little clinical specialisation and professional autonomy in physiotherapy (Galley, 1976). Physiotherapists were dependent on the judgements of medical practitioners to refer patients to their services (Galley, 1976).

During the late 1970s, physiotherapy began to move away from the medical referral model and became a first-contact health profession (Galley, 1976). This change in professional status demanded increased accountability in physiotherapy service quality and to the public (Grimmer *et al* 2000). The decision to enhance professional autonomy through self-

regulation and permit clinical specialisations remains a significant precursor to the present evolution of physiotherapy (Grimmer *et al* 2000).

Occupational independence from hospital-based physiotherapy arose from an increased push for self-regulation and paved the way for physiotherapists to become heads of departments (Ovretveit, 1985). As professional autonomy in physiotherapy increased, there was a reciprocal reduction in dominance of medical practitioners over their control over physiotherapy departments (Ovretveit, 1985). The gradual reduction in medical dominance over physiotherapy was illustrated in a study by Wong *et al* (1994), which reported that medical practitioners made significantly less formal diagnoses of a patient's condition prior to referring to physiotherapy clinics, thereby reflecting their greater confidence in the physiotherapist's ability to clinically reason the cause of the patient's problem. In addition, there was a statistically significant reduction in medical practitioners recommending treatment modalities and they were more likely to request physiotherapy as a specialist option for patients (Wong *et al* 1994).

The literature has detailed changes in clinical boundaries between physiotherapists and doctors, such as ordering magnetic resonance imaging (MRI), blood tests or triaging patients, which paved the way for extended scopes of practice in physiotherapy (Kersten *et al* 2007). The pressures in healthcare services, such as staff shortages, have resulted in a further shift in clinical boundaries by necessitating the need to examine how different professions could supplement shortfalls in clinical care (Smith *et al* 2000). This shift has led to greater autonomy and enhanced professional skills in physiotherapy practice, which has contributed to additional specialisations in physiotherapy (Kumar, 2010).

2.4.5 Specialisation in physiotherapy

Specialisation was a key step in maturing the physiotherapy profession to its current autonomous status, as specialisation implies expertise in a particular field (Kumar, 2010).

Specialisation in physiotherapy reflected the growing level of knowledge beyond the general scope of practice and as a result increased the demand for specialist physiotherapy services (Wagstaff, 2001). As demand increased, physiotherapists had the opportunity to advance their careers and this provided an opportunity for a wider scope of practice (Wagstaff, 2001).

Increasing pressure from the UK NHS to evaluate and treat patients within cost-effective parameters also increased demand for specialist physiotherapy services (Ogulata *et al* 2008). Physiotherapy services that focussed on reducing patient stays in the hospital, greater management of patients in the community, increased patient self-management programmes and public health and wellbeing promotion were seen as appealing to hospital management boards and commissioners (Ogulata *et al* 2008). As a result, the physiotherapy profession progressively advanced its scope of practice to involve non-traditional settings. For instance, one of the early physiotherapy specialisations was the development of musculoskeletal triage clinics, where extended scope practitioner physiotherapists made radiological requests and clinical decisions concerning management options for patients (Oldmeadow *et al* 2007).

2.4.6 Occupational health physiotherapy as a specialisation

ACPOHE is a Professional Network of the CSP and was founded in 1947 to provide a supportive network for physiotherapists working in occupational health and ergonomics (ACPOHE, 2013). According to ACPOHE occupational health physiotherapy is an evolving clinical speciality which requires advanced clinical practice and organisational knowledge of a senior, experienced clinician (ACPOHE, 2013). However, occupational health physiotherapy has not yet been recognised as a bona-fide clinical speciality by the WCPT and is often grouped with either musculoskeletal or community physiotherapy (Johnson, 2013).

Attempts have been made by ACPOHE to promote occupational health physiotherapy as a specialist field of clinical practice. In 2010, ACPOHE introduced a registered membership scheme in which physiotherapists could gain recognition as an advanced member (ACPOHE, 2010). There are currently three routes to becoming an ACPOHE registered member, which are the educational achievement route, in which members must complete a certificate, diploma or master's-level course that develops knowledge and skills in the work and health fields; a short course and case study route where members must complete four ACPOHE courses and submit a case study; and an in-depth case study assignment route, which specifies that members must submit two in-depth case studies (ACPOHE, 2010). In the UK, there are no master's-level occupational health courses specifically for physiotherapists, and physiotherapists wishing to enrol in higher education in this speciality are required to take related courses, for example, the Master of Public Health, Master of Ergonomics or Master of Occupational Health and Safety Management (ACPOHE, 2010).

In 2012, the development of the Occupational Health Framework for Physiotherapists by ACPOHE was seen a landmark move for occupational health physiotherapy specialisation (ACPOHE, 2012a). This framework contained specific information with respect to the behaviours, knowledge and skills which are considered integral to the role of occupational health physiotherapists, namely: (a) values (values are not described at a specific level but are expressed through the behavioural elements of other domains within the frameworks); (b) knowledge and understanding of occupational health (occupational health is generally not compulsory and may not be introduced in the undergraduate curriculum. Areas where specialist knowledge and understanding are required will have to be developed in postgraduate education); (c) practice skills; (d) generic behaviours, knowledge and skills for interacting; and (e) generic behaviours, knowledge and skills for problem solving and decision making (ACPOHE, 2012a).

In 2012, the recognition of the specialist role of occupational health physiotherapists was acknowledged by the CSP, in conjunction with the College of Occupational Therapy and Society of Chiropodists and Podiatrists, with the launch of the 'Allied Health Professions (AHPs) Advisory for Work Assessment' form. This assessment form allows AHPs to make recommendations to support ill or injured employees back to work earlier or prevent them from going off sick in the first place. It was designed to complement the existing 'Statement of Fitness to Work' form that General Practitioners (GPs) use to determine whether patients can remain in work or need to be signed off (ACPOHE, 2012b). However, even though the AHP advisory form can be used by all registered physiotherapists, a study by Gray and Howe (2013) which assessed the beliefs and skills of outpatient physiotherapists related to their management of bio-psychosocial and workplace factors among clients with back pain, found that while most outpatient physiotherapists supported the bio-psychosocial approach, they failed to manage risk factors in the workplace, believing that these issues were outside the scope of their profession. The authors concluded that outpatient physiotherapists were not confident in tackling workplace risk factors in order to aid in the prevention of disability, and that further professional training in the form of occupational health knowledge and practice is required as part of their professional development (Gray and Howe, 2013).

In 2017, the CSP and the College of Occupational Therapists (COT) advised their members not to use the term 'occupational physiotherapist' as this term implies a joint qualification and could be perceived as misleading (ACPOHE, 2017). Both the CSP and COT stated that the use of the term 'occupational physiotherapist' provides scope for confusion thereby giving rise to some commissioners and service users mistakenly gaining the impression that the practitioner is qualified as both a physiotherapist and occupational therapist (ACPOHE, 2017). Alternatives suggested by the CSP and COT are to use the descriptor 'occupational health physiotherapist', 'physiotherapist (occupational health)' or similar (ACPOHE, 2017). Furthermore, both the CSP and COT encourage the use of the words 'occupational health' rather than just the word 'occupational' on its own within the descriptor because the term

‘occupational’ is the adjectival descriptor in the protected title for the occupational therapy profession which relates to the core focus of occupational therapists’ practice (ACPOHE, 2017).

From a medico-legal perspective, in 2009 the General Medical Council (GMC) published a new guidance on confidentiality, which took effect in April 2010 (GMC Supplementary Guidance, 2009). In the new guidance, doctors providing a report about an employee to the employer should offer to show the report to the employee or give them a copy before it is sent to the employer (GMC Supplementary Guidance, 2009). Exceptions include cases where the employee indicates that they do not wish to see the report or if disclosure would cause harm to a third party or if disclosure would reveal information about another person who did not give consent (GMC Supplementary Guidance, 2009). In 2017, the GMC guidance on confidentiality was updated, however, no changes were made to the section on doctors providing a report about an employee to the employer (GMC, 2017). As of yet, there is no guidance on confidentiality and consent from the HCPC specifically for physiotherapists working in occupational health who are required to write reports about an employee to the employer. However, ACPOHE suggests that physiotherapists working in occupational health should comply with the GMC guidance (ACPOHE, 2010).

2.5 Summary

In summary, this chapter explored the background and context of the project. The history of occupational health physiotherapy, including the legal and policy frameworks, were discussed. The conceptual framework of occupational health and physiotherapy was also covered. The next chapter will provide a review of the ACPOHE (2012a) Framework, literature and the development of the theoretical framework.

CHAPTER THREE: LITERATURE REVIEW AND DEVELOPMENT OF THEORETICAL FRAMEWORK

3.1 Introduction

In the first part of this chapter a summary of the ACPOHE (2012a) Framework for Physiotherapists in Occupational Health is presented and in the second part the literature of the role of occupational health physiotherapy is reviewed.

3.2 Summary of ACPOHE (2012a) Framework

The ACPOHE (2012a) Framework for Physiotherapists in Occupational Health is made up of generic behaviours, knowledge and skills. The components of the framework are divided into 5 categories, namely:

Category 1: Values

Values were not described at a specific level but are expressed as behavioural elements within the other categories.

Category 2: Knowledge and understanding of occupational health

Occupational health training is generally not compulsory at the undergraduate level. Areas where specialist knowledge and understanding are required must be developed at postgraduate level. In this category the following knowledge and understanding is proposed:

- Building on undergraduate knowledge
- Epidemiological research methods providing the knowledge and skills to evaluate research to establish casual links in the development of work relevant disease
- Clinical sciences relevant to professional practice in occupational health, evidence-based underpinning profession's contribution, concepts and approaches that inform the development of occupational health interventions
- Behavioural sciences relevant to professional practice in occupational health,

occupational psychology, sociology of health and work, theories of communication, leadership and team working, and pedagogy

- Ethical principles underpinning practice in occupational health
- UK legal and policy frameworks governing occupational health and including case law
- Commercial knowledge including the need for and methods to make a business case for occupational health, rehabilitation and ergonomic services
- Applied workplace ergonomics
- The biopsychosocial model and its application to work and to disability, biopsychosocial assessment and management. Knowledge includes WHO International Classification of Functioning, Disability and Health (ICF) and its application in the design and delivery of occupational health services
- Identification and management of issues that affect recovery and return to work
- Health behaviour and health behaviour change

Category 3: Practice skills

These are the skills proposed by the framework to work effectively on occupational health:

- Self-awareness
- Political awareness
- Psycho-motor skills

Category 4: Generic behaviours, knowledge and skills for interacting

- Communication skills
- Helping others learn and develop
- Managing self and others
- Promoting integration and team work
- Keeping customer focus at the centre of practice

Category 5: Generic behaviours, knowledge and skills for problem-solving and decision making

- Ensuring quality
- Improving and developing services
- Lifelong learning (CPD)
- Practice decision making
- Researching and evaluating practice (audit)
- Using evidence to lead practice

3.2.1 Perceived gaps and weaknesses of the ACPOHE (2012) Framework

The development of the framework was limited to the expert opinions of physiotherapists. This approach in developing the ACPOHE (2012a) Framework does not facilitate moving away from professional isolation (that is, a physiotherapy-only perspective) and into the real-world interrelationships with work colleagues, commissioners and clients in order to formulate a collective agreement on the role of occupational health physiotherapy. The ACPOHE (2012a) Framework is not explicit about the organisational components of the role of occupational health physiotherapists. The ACPOHE (2012a) Framework does not mention the route of access to occupational health physiotherapy care or the specific identity of occupational health physiotherapists in an occupational health department and in relation to the organisation. With regards to the nature of occupational health physiotherapy advice, the ACPOHE (2012a) Framework reported that an occupational health physiotherapist should have the knowledge and understanding of occupational health, however, this does not emphasise the expert knowledge and organisational understanding required of occupational health physiotherapists within the remit of their job role. The ACPOHE (2012a) Framework requires an occupational health physiotherapist to have practice skills, however this is not explicit enough when it comes to the specific vocational rehabilitation skills that are required of occupational health physiotherapists.

3.3 Review of the literature of the role of occupational health physiotherapy

A comprehensive literature search was carried out in order to identify information from a variety of sources. The purpose of undertaking this review was to provide an up-to-date understanding of the role of occupational health physiotherapy and its significance to practice; to identify the methods used in previous research on this topic; and to provide comparisons for my own research findings. Initially, electronically databases were searched between the period 1997-2017 which included Google Scholar, Public Medline (PubMed), Public Medline Central (PubMed Central), Allied and Complementary Medicine Database (AMED), Cumulative Index to Nursing and Allied Health Literature (Cinahl), British Medical Journals (BMJ Journals), Biomedical Central (BioMed Central), Excerpta Medica Database (Embase), Psychological Informational Database (PsycInfo), Physiotherapy Evidence Database (PEDro), Medical Literature Analysis and Retrieval System Online (Medline) and the World Health Organisation (WHO). Thereafter, additional literature was gathered from reference lists and from expert researchers in allied health sciences.

Key search terms were formulated into five broad categories, namely: (a) physiotherapy; (b) physiotherapist; (c) occupational health; (d) role of practice; and (e) stakeholders. Boolean operators ‘AND’ and ‘OR’ were used to vary the search combinations, with ‘AND’ combining each category and ‘OR’ combining the words within each category. These varying combinations of search terms were used in the different databases in order to narrow or broaden the search to ensure a reasonable search output, and only articles that were in English were retrieved. Those articles that appeared as abstracts were read and the full papers of those abstracts that appeared to be pertinent to the project were acquired. In order to gauge the level of evidence, each article was assessed according to the Melnyk and Fineout-Overholt (2011) classification system (See Table 1).

Table 1: Levels of evidence

Level of evidence	Description
Level I	Systematic review and meta-analysis of randomised controlled trials, clinical guidelines based on systematic reviews or meta-analyses
Level II	One or more randomised controlled trials
Level III	Controlled trial (no randomisation)
Level IV	Case-control or cohort study
Level V	Systematic review of descriptive and qualitative studies
Level VI	Single descriptive or qualitative study
Level VII	Expert opinion

3.4 Review of the evidence

Nine articles were identified relating to the project based on reading the abstract, however only four articles were considered relevant to the topic and selected for review after reading the full papers (See Table 2). A second reviewer (Lead Development and Research Physiotherapist) who was not part of the project team independently screened the identified articles and the final articles were selected following discussion. The advantage of having a second independent reviewer is that peer scrutiny enhances the accuracy of the selection process (Shenton, 2004). Table 2 provides brief descriptions of the selected articles.

Table 2: Brief descriptions of selected articles

Authors	Description of study
Pizzari and Davidson (2013)	Pizzari and Davidson (2013) conducted a prospective case-controlled study with 21 clients receiving occupational health physiotherapy via an insurance-based scheme and 21 matched clients receiving outpatient physiotherapy. Health outcomes such as Return to Usual Activities (Kennedy *et al* 2006), Short Form (SF)-12 (Sanderson and Andrews, 2002), Global Perceived Effect of Treatment (Gross *et al* 2004) and self-report return-to-work questionnaires (Dionne *et al* 2005) were recorded at the commencement of physiotherapy, at discharge and at three and six months follow-up. The clinical conditions included in the study were clients presenting with strains and fractures at different anatomical sites. The occupational health group improved significantly in physical functioning (p=0.00) whereas the control group deteriorated significantly in mental health status (p=0.01) according to the SF-12 scores. The results indicated a significant difference (p=0.00) favouring the occupational health physiotherapy group for returning to usual activities. While all participants returned to work following their injury, the occupational health physiotherapy group demonstrated greater change in physical functioning health outcomes over time (that is, at three months (p=0.02) and at six months (p=0.00)).
Phillips *et al* (2012)	Phillips *et al* (2012) conducted a pragmatic cohort study to evaluate the cost-effectiveness of physiotherapy support for NHS occupational health services. A total of 515 clients completed health outcome measures at baseline, at discharge and three months follow-up. All 515 clients received telephone triage assessment and advice, of which 29 were discharged and 486 were referred for face-to-face assessment and treatment, of which 199 also received workplace assessments. Health outcomes were measured using SF-12 (Gandek *et al* 1998) and the Pain Catastrophising Scale (Osman *et al* 2000). The cost-effectiveness of the service was evaluated using the cost per Quality Adjusted Life Year (cost/QALY) as measured according to the EQ-5D (Brooks, 1996) and the work situation was determined using the Fear Avoidance Beliefs Questionnaire (Waddell *et al* 1993). The conditions included in the study were disorders of the back, neck and upper and lower limbs. An improvement was noted at discharge for all health outcomes assessed (p<0.00) and quality of life (p<0.05) and this was maintained at three months (p<0.00). The costs of the service were calculated at £194-£360 per service user and health gains contributed to a cost/QALY of £1386-£7760, which would represent value for money according to the estimates of the NICE thresholds (Rawlins and Culyer, 2004). The sensitivity analysis undertaken by the authors demonstrated that the service would continue to be cost-effective until the service costs increased to 160% per client.
Addley *et al* (2010)	Addley *et al* (2010) conducted a cohort study on the impact of a direct-access physiotherapy service in an occupational health setting. There were 231 clients that were assessed pre- and post- occupational health physiotherapy intervention using health outcomes such as the Visual Analogue Scale for Pain (Linton and Hallden, 1998), Work Function Score (Loisel *et al* 2005), Adjusted Clinical Score (Clarkson, 2000) and the self-report Questionnaire for Sickness Absence and Attendance at Work (Health and Safety Executive, 2009b). The highest referrals to the

	direct access occupational health physiotherapy service were because of back and neck conditions (70%) with minimal referrals attributed to upper and lower limb disorders (30%). Back and neck conditions contributed to the highest level of sickness absence. There were significant improvements in all health outcomes ($p<0.05$), and there was even greater significant ($p<0.05$) after three to four physiotherapy sessions in the Work Function Score and Visual Analogue Scale for Pain compared to those that received one or two sessions. Furthermore, there was greater significant ($p<0.01$) after five to six sessions for the Adjusted Clinical Score. The response rate for the self-report questionnaire was low at 29% (n=66), but of the clients that did respond and were at work, 87% (n=58) indicated that occupational health physiotherapy intervention prevented them from taking time off work, and of those that were absent from work, 89% (n=8) reported that occupational health physiotherapy enabled them to return to work earlier.
Hoenich (1997)	The study by Hoenich (1997) was based on expert physiotherapy opinion and provided insights into the wider context of the role of occupational health physiotherapy in the management of fitness for work. The author also included examples of managing work-related musculoskeletal conditions based on personal experiences geared towards the recovery of an employee's working capacity.

3.5 Themes in the literature

In this section, the selected articles were reviewed in order to identify themes in the literature. It must be stated at the outset that there was a dearth of literature on the role of occupational health physiotherapy and this must be taken into consideration when reading the literature review. A thematic analysis process described by Braun and Clarke (2006) was used to identify the themes in the literature. This involved reading and re-reading the articles until I became familiar with the content and began noting initial ideas. The initial ideas that were similar in nature were grouped together into potential categories. These categories were searched for emerging themes and refined until the final themes were defined. All data relevant to each theme were gathered by 'lifting' the relevant content from the article and arranged under the appropriate theme. A second reviewer (Lead Development and Research Physiotherapist) who was not part of the project team independently reviewed the articles for emerging themes using the process described above and the final themes were agreed following discussion. The advantage of having a second physiotherapist review the

articles was the familiarity of the physiotherapist to profession-specific language, knowledge and issues raised in the articles.

The final themes were: (a) context of occupational health physiotherapy practice; (b) clinical conditions managed by occupational health physiotherapists; (c) outcome measures used in occupational health physiotherapy; and (d) occupational health physiotherapy influencing service delivery and quality.

3.5.1 The context of occupational health physiotherapy practice

All studies described the context of occupational health physiotherapy provision as contributing to the employers' sickness absenteeism reduction initiatives. According to Phillips *et al* (2012) this can be described within a three-tiered format, namely telephone advice and triage; face-to-face physiotherapy assessment and treatment; and workplace assessments. For Hoenich (1997), a wider context exists for occupational health physiotherapists, namely: (a) group monitoring for whom the occupational physiotherapist investigates a particular department that may have underlying problems, such as high absenteeism or new or changing work demands; (b) pre-placement screening, for which the occupational health physiotherapist assesses the relevance of previous health problems to determine if employees are fit for work; (c) case management, where the occupational health physiotherapist treats clients for progressive deterioration and functional loss to improve positive adaptation rather than negative loss (for example, referral to support networks or choosing the correct chair); and (d) health promotion (for example, encouraging healthy eating, smoking cessation, joint protection principles, learning effective resting postures and encouraging safe work practices). In addition, Pizzari and Davidson (2012) emphasised the effects of the legal aspects of the occupational health physiotherapists' work (for example, providing an opinion on fitness to work, and monitoring compensations claims).

3.5.2 Clinical conditions managed by occupational health physiotherapists

All studies reported the role and responsibilities of the occupational health physiotherapist as only managing a musculoskeletal caseload. Phillips *et al* (2012) suggested that occupational physiotherapists manage pain, fear avoidance behaviour, arm, shoulder, hand, neck and lower extremity disorders and associated psychological distress. Addley *et al* (2010) reported that there was a greater role in managing back, neck and shoulder disorders with less reference to lower limb disorders because back and neck disorders contributed to higher levels of absenteeism in industry. Pizzari and Davidson (2013) and Hoenich (1997) both included a more detailed description of the clinical conditions managed by occupational health physiotherapists. According to Pizzari and Davidson (2013) some of the conditions included musculoskeletal sprains and strains, fractures, ligament ruptures, lacerations, joint dislocations, or subluxation. Hoenich (1997) noted frequent occupational clinical conditions such as repetitive strain injuries based on continuous motion, static work postures and localised tissue overload (for example, tenosynovitis and supraspinatus tendinitis).

3.5.3 Outcome measures used in occupational health physiotherapy

Hoenich (1997) addressed the occupational health physiotherapist's role in monitoring the health changes of employees. However, Addley *et al* (2010), Phillips *et al* (2012) and Pizzari and Davidson (2013) reported that the clinical role of occupational health physiotherapists was justified by the use of outcomes measures. Those outcome measures utilised by Addley *et al* (2010) included the Visual Analogue Scale for Pain, a standard scale for rating pain ranging from none (score=0) to very severe (score=10); Work Function Scale, which has five categories ranging from working normally with no reduced capacities to absent from work with major restrictions of activities of daily living; and Adjusted Clinical Score, a single 10-point clinical rating scale incorporating muscle strength, range of joint movement, stability, and maintenance of joint function; and the WHO Wellbeing Index, which is a short questionnaire consisting of 5 simple and non-invasive questions that tap into the subjective wellbeing of the participant.

Pizzari and Davidson (2013) incorporated the SF-12 Health Survey to examine the health status of each participant. The SF-12 Health Survey consists of 12 questions from the SF-36 Health Survey and yields two scores that provide insight into participants' physical and mental functioning. Physical and mental composite scores indicate better health status if higher, and include return to usual activities, where participants rate the degree to which they had resumed their usual activities after injury; and global perceived effort, in which participants' rate their perception of changes in their condition and ability to return-to-work. Participants' work status is categorised using descriptors such as 'success' for those at work without restrictions; 'partial success' for those at work with restrictions, 'failure after attempt' for those absent from work but who had at least one attempt to return to regular work; and 'failure' for those who are still absent from work and no attempt has yet been made to return to work.

Phillips *et al* (2012) employed a more generic range of outcome measures, including the Pain Catastrophising Scale; the Orebro Musculoskeletal Screening Questionnaire, recommended for employees who are not improving and provides a chronicity score; Fear Avoidance Questionnaire; Self-Report Sickness Absence and Work Performance Questionnaire; Roland-Morris Disability Questionnaire for low back pain; Disabilities of Arm, Shoulder and Hand Questionnaire; Neck Disability Index; Lower Limb Functional Scale and health-related quality of life measures, such as the EQ-5D, SF-12 Health Survey and the General Health Questionnaire.

3.5.4 Occupational health physiotherapy quality and service delivery

Three studies (Addley *et al* 2010; Phillips *et al* 2012; Pizzari and Davidson, 2013) justified the efficacy of occupational health physiotherapy by measuring clinical outcomes after interventions for musculoskeletal conditions. None of the studies determined the quality of service delivery using time to initial appointment (that is, waiting times) or client satisfaction. Only one study by Addley *et al* (2010) acknowledged rapid access as a feature of

occupational health physiotherapy for reducing sickness absenteeism. In terms of service access, Phillips *et al* (2012) and Addley *et al* (2010) advised not only management referrals but also self-referrals to occupational health physiotherapists. The prospective case-control study by Pizzari and Davidson (2013) showed that health outcomes were improved significantly (p=0.00) for clients that received occupational health physiotherapy interventions.

3.6 Methodological level of evidence

In terms of the level of evidence, three articles (Addley *et al* 2010; Phillips *et al* 2012; Pizzari and Davidson, 2013) were at Level IV (that is, evidence from case-control and cohort studies) and one article (Hoenich, 1997) was at Level VII (that is, evidence from expert opinions) according to the Melnyk and Fineout-Overholt (2011) classification system (See Table 3). Table 3 is a summary of the methodological level of evidence for each article of the literature review.

Table 3: Summary of methodological level of evidence

Authors	Level of evidence	Type of methodology
Pizzari and Davidson (2013)	Level IV	Case-control study
Phillips *et al* (2012)	Level IV	Cohort study
Addley *et al* (2010)	Level IV	Cohort study
Hoenich (1997)	Level VII	Expert opinion

3.7 Limitations of the literature

An extensive literature search was conducted as a prelude to developing the research question. Overall, the literature review has seen the role of occupational health physiotherapy being limited to clinical (such as, assessment including pre-screening; treatment; use of generic and work-related health outcome measures; case management; sickness absence management; workplace assessments; health promotion and monitoring compensations claims) and cost-effectiveness analysis (that is, cost/QALY) of managing a musculoskeletal caseload only, and no research conducted on the role of occupational

health physiotherapy from stakeholders outside the physiotherapy profession, such as occupational health clinicians, workforce managers or clients.

Only one study, that of Phillips *et al* (2012), was conducted in the NHS, while the other three studies were carried out in the private sectors, specifically private companies and fee-paying insurance clients in the study by Pizzari and Davidson (2013); a private Workplace Health Improvement Centre in the study by Addley *et al* (2010); and industry in the study by Hoenich (1997). There were no mixed-methods studies undertaken to explore the role of occupational health physiotherapy. Three studies were quantitative in nature (Addley *et al* 2010; Phillips *et al* 2012; Pizzari and Davidson, 2013); and one study was qualitative, providing a personal account of the author's experience in providing occupational health physiotherapy in industry (Hoenich, 1997).

Table 4 outlines the overall gaps in the evidence base. This project aims to address one of the gaps, and thus the following research question is proposed: **What is the role of occupational health physiotherapy in the NHS from the perspectives of different stakeholders (namely, occupational health clinicians, workforce managers and clients)?**

Table 4: Summary of the overall gaps in the evidence base

ACPOHE (2012) framework	Literature review 1997-2017	Gaps in evidence base
The role of occupational health physiotherapy is limited to expert opinions of physiotherapists. Not explicit about the organisational components, identity, vocational rehabilitation skills route of access, expert knowledge.	No research was conducted on the role of occupational health physiotherapy from stakeholders outside the physiotherapy profession. No studies were performed employing a mixed-methods framework. Limited research was carried out in the NHS setting.	The role of occupational health physiotherapy from the perspectives of different stakeholders. No mixed-methods research studies.

It is hoped that these critical questions will help consolidate the role of occupational health physiotherapy and inform the development of a multiple-perspective conceptual framework

in order to advance the practice of occupational health physiotherapists. In doing so, this project will make an original contribution to knowledge in this niche area.

3.8 Theoretical framework

The review of the previous body of work relating to the role of occupational health physiotherapy indicates that this is an important role, yet the development of the ACPOHE (2012a) Framework was limited to the expert opinions of physiotherapists, and the few studies focussing on this role were largely conducted in private organisations despite the fact the NHS is one of the largest employers in the world; did not include the perspectives of stakeholders from outside the physiotherapy profession; and were mainly quantitative in nature.

While I acknowledge that many private organisations routinely provide occupational health physiotherapy as an employee benefit compared to the NHS, and that there is a preference in the physiotherapy profession to undertake quantitative studies along with a general reluctance from physiotherapists to explore their roles from perspectives outside the physiotherapy profession, there is no evidence to suggest that exploring the perspectives of stakeholders from outside the physiotherapy profession is not important.

Drawing upon this idea of a multiple-perspective approach, a theoretical framework, portraying the different stakeholders and how they interact with one another in relation to the role of occupational health physiotherapy, was developed (See Figure 1). Figure 1 portrays the role of occupational health physiotherapy in a central position and how the different stakeholders interact with it and also with each other. The proposition is that the combined perspectives of different stakeholders will have a greater influence, than each stakeholder group alone, in terms of advancing the role of occupational health physiotherapy.

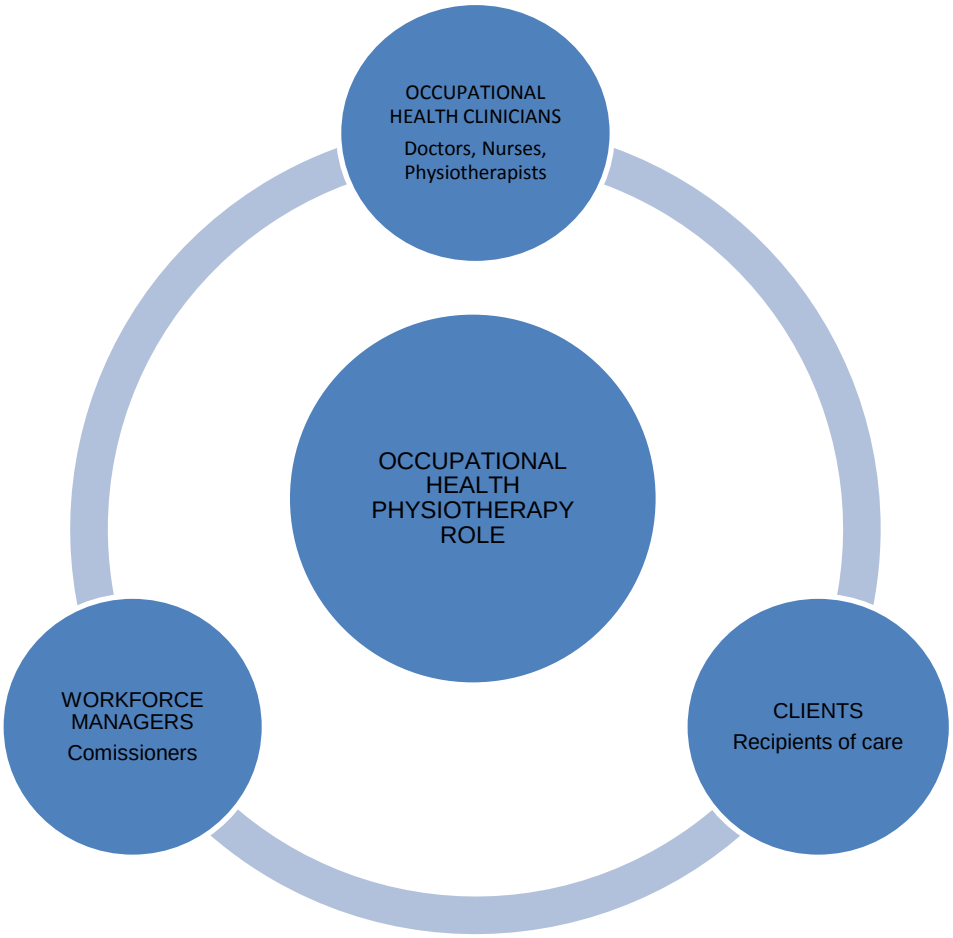

Figure 1: Role of occupational health physiotherapy - a theoretical framework

Grimmer *et al* (2000) examined the constructs of quality physiotherapy and found that in physiotherapy practice, the main stakeholders were those that implemented the care (the clinicians); those that either directly or indirectly benefited from the care provided (commissioners and referrers); and those that are the recipients of care (the patients/clients and their families). There is a definite paucity of rigorous research that cohesively addresses key occupational health stakeholders, yet an understanding of the perspectives of relevant stakeholders is essential of shaping the role of physiotherapy within a service.

3.8.1 Clinicians as stakeholders

According to Atwal and Caldwell (2002) this stakeholder group consists of the core professions collaborating in a department. Scott *et al* (2003) examined cultural change in healthcare and concluded that physiotherapists have to negotiate their roles around the doctors and nurses who have traditional authority in the healthcare setting. Scott *et al* (2003) further added that multidisciplinary collaboration is known to improve patient outcomes, contributing to more comprehensive assessments and offering patients or clients a variety of treatment options.

Kirk (2012) carried out a national survey in the UK on the role of advanced nursing practice in occupational health and found that the introduction of advanced practice nurses in occupational health was initially met with some trepidation by the medical profession. Kirk (2012) highlighted that there were concerns that the occupational health nurses would have greater autonomy, the ability to prescribe medication and to make blood and radiographic requests with the potential risk of deskilling junior medical staff. No studies have looked into the extent to which the concerns facing occupational health nurses apply to the integration of physiotherapists in occupational health departments, however, the literature does recognise that positive health outcomes are at risk if departmental staff do not work together to reduce clinical errors (Kirk, 2012). According to Atwal and Caldwell (2002) this involves understanding the roles each other play to effectively collaborate on clinical management and avoid duplication of professional roles, wasting resources and missing clinical signs in the interest of protecting their respective turfs.

3.8.2 Commissioners as stakeholders

Commissioners have a direct relationship with an organisation by outlining the provision and cost of services required for it (Phillips *et al* 2012). However, a gap exists in the literature regarding what commissioners understand about occupational health physiotherapy and, more specifically, if occupational health physiotherapists are likely to be funded as part of the

future provision of occupational health services. Commissioners are aware that many clients using the NHS are frustrated at the long waiting times for physiotherapy treatment in primary care clinics (Watson *et al* 2008), however, occupational health physiotherapists are often commissioned as a last resort or as a "safety-net" for organisations in order to provide rapid access physiotherapy care for their employees (Phillips *et al* 2012, p.37).

3.8.3 Clients as stakeholders

According to Pinnington *et al* (2004) clients are an important stakeholder group and there is ever-increasing commitment from healthcare organisations to explore the client perspective. Battie *et al* (2002) examined a medical care model on back and neck injury claims and found that media reports about poor service performance often reflected the negative experiences of clients, such as prolonged waiting times or unsatisfactory care. Under the circumstances of poor client experiences, Beattie and Nelson (2008) highlighted the negative image that clients can have of an organisation when they neglect their follow-up care and advice. Additionally, this can also affect the services offered to clients because the quality of care is often a benchmark that influences service funding allocations (Loisel *et al* 2005). Although Germov (2002) has claimed that clients want to be involved in determining the direction of their healthcare, there have been no empirical studies focussing on how clients view the role of the occupational health physiotherapy, their expectations of it or whether or not it provides any benefit.

3.9 Summary

This chapter summarised the relevant literature pertaining to the role of occupational health physiotherapy. All relevant themes were explored and the gaps and limitations in the literature were identified. Furthermore, the review revealed the significant dearth of empirical literature on the role of occupational health physiotherapy and the lack of research conducted from the perspectives of different stakeholders. The research question arising from the gaps in knowledge were specified and this informed the development of the

theoretical framework. The next chapter will discuss the methodology, including the data collection methods and analytical processes, and how the ethical and governance issues were addressed.

CHAPTER FOUR: METHODOLOGY

4.1 Introduction

The choice of research methodology should be guided by the research question because ultimately the scientific value of any methodology lies in its ability to provide meaningful and useful answers to the question that motivated the research in the beginning (Elliott *et al* 1999). This project used a qualitative, interpretative, case study research methodology. This chapter discusses the rationale for choosing this methodology and how it shaped the conduct of the project. The features and relevance of case study research are also covered. In addition, the use of semi-structured interviews as the data collection method and framework analysis as the data evaluation technique is addressed. The ethical issues and process of research governance approvals are also considered.

4.2 Rationale for a qualitative research approach

The purpose of qualitative research is to understand the meaning that people attribute to their experiences within a specific context or situation (Angen, 2000). The process of discovering meaning and the nature through which people understand this meaning is the cornerstone of qualitative research (Denzin and Lincoln, 2003). The underlying assumption of qualitative research is that truth and reality are not absolute (Denzin and Lincoln, 2003), and is reinforced by Jones *et al* (2006) who reported that qualitative research does not seek to find an absolute truth or reality, but rather to discover the richness and complexity of a situation, resulting in contextually framed perspectives.

With qualitative research, the researcher is part of the process of discovering meaning, and so there is an appreciation of subjectivity and a need for reflexivity on the part of the researcher (Flick, 2002). This is in contrast to quantitative research that aims to eliminate the researcher from the research process, so that the data can be analysed in a bias-free and objective manner (Lee and Baskerville, 2003). Qualitative research is continually developing

and evolving, moving from grand narratives to the rich and in-depth descriptions of meaning, feelings and experiences (Roulston *et al* 2003). Although the increase in evidence-based practice encourages a quantitative approach to research (Darling and Scott, 2002), the main benefit of undertaking qualitative research is the value it places on different viewpoints so that the research phenomenon can be explored more holistically to reflect the complexity of the phenomenon under investigation (Irvine and Gaffikin, 2006).

In relation to this project, I considered qualitative research as the most appropriate approach because it "crosscuts disciplines and subject matters" which allowed for the exploration of the role of occupational health physiotherapy across different clinical disciplines (such as medicine and nursing) and across different subject matters (such as personal, clinical, organisational and commissioning) (Denzin and Lincoln, 2003, p.3). In addition, the vast range of factors influencing the role of occupational health physiotherapy makes the role extremely complex and attempting to isolate or measure it as specific and non-contextual, for example by using a quantitative approach (such as a randomised controlled trial), ignores this complexity. In contrast, qualitative research embraces complexity which permitted the multi-faceted nature of the topic to be explored.

However, I did not choose a qualitative approach with the intention of privileging one approach over another. Rather, I chose a qualitative approach because it best met the project's overall aim and objectives along with informing the research question. This project explored the role of occupational health physiotherapy from the perspectives of different stakeholders, and it would not have been possible to do so if a single, objective truth could be established and explained. For example, stakeholders may find it difficult to express their perspectives for the first time, they may have multiple or conflicting viewpoints or I may, personally, find it challenging to understand how they arrived at a particular point of view. A quantitative approach, therefore, seeking a single perspective of the role of occupational health physiotherapy from different stakeholders would not have been appropriate.

This is in contrary to qualitative research which requires rapport and empathetic listening skills to build a bond of trust, care and understanding so that participants may be more willing to provide honest and in-depth explanations for their viewpoints. In this regard, there is an appreciation of the different perspectives on the role of occupational health physiotherapy, and this is a valuable source of rich and contextualised information to inform the development of a multiple-perspective conceptual framework in order to advance the practice of occupational health physiotherapists.

4.2.1 Qualitative research and its relevance to the physiotherapy profession

Rapport and Wainwright (2006) reported that a qualitative approach is often considered a viable methodological design for focusing on research that is relevant to practice and which is grounded in experiences. This approach, therefore, is valued in the physiotherapy profession because it forms the foundations for practice. According to Sandelowski (2000) a qualitative approach challenges physiotherapists to question further as opposed to only making inferences and identifying causality, which, according to Jelsma and Clow (2005) has contributed to physiotherapists' progressively implementing qualitative methods within their work.

The physiotherapy profession is usually viewed as a largely scientific profession, and consequently the majority of research has been predominantly quantitative. Although the use of qualitative research is not new to the physiotherapy profession, it is rapidly emerging as a viable research approach as a result of the need to understand not only the hard science of clinical research, but also the social context of the work (Jelsma and Clow, 2005). Within the physiotherapy profession, there is recognition of the value of evidence-based frameworks to guide professional practice. In this project, the value of qualitative research exists in the fact that it holds the subjective perspectives of different stakeholders as the central focus in order to develop a conceptual framework to advance the practice of occupational health physiotherapists.

4.3 Philosophical orientation

Ontology is to “understand the social reality as different people see it and to demonstrate how their views shape the action which they take within that reality” (Anderson and Bennett, 2003, p.153). I view social reality as being co-constructed by individuals who interact and make meaning of their world in an active way as opposed to the belief that the world of social interactions exists independently of what I perceive it to be. In other words, as a rational, external entity that is responsive to scientific and positivist modes of inquiry (Gallagher, 2008). The overall aim of this project necessitates an ontological orientation that aligns with social reality being co-constructed because I explored how different stakeholders revealed their perspectives on the role of occupational health physiotherapy by drawing upon their experiences as a doctor, nurse, manager or client.

Epistemology deals with “issues having to do with the creation and dissemination of knowledge in particular areas of inquiry” (Bracken, 2010, p.2). In social research, Cohen *et al* (2000) stated that when exploring and contextualising human experiences and interactions, the focus should be on the human beings themselves because they are responsible for their actions and should be a critical aspect of the research. The orientation that is likely to fulfil the overall aim of the project is the interpretative orientation because it is studied from a holistic perspective and in a natural setting in order to gain in-depth insights into how human beings create and maintain their social worlds (Punch, 2005).

Another orientation of epistemology is positivism, and accordingly, once external conditions are controlled and monitored systematically, they may be subjected to experimental testing to reveal ‘the truth’ not only in the physical sciences, but also with respect to the nature of human behaviour (Schneider *et al* 2007). The overall aim of this project is therefore unlikely to be met with a positivist orientation because perspectives imply meaningful and personal insight and reflection of experiences (Neuman, 2003), all of which tends to be rendered meaningless by a positivist orientation unless external conditions are controlled so that the

insights and experiences of the different stakeholders are determined by stimuli which is not of their own making (Hyslop-Margison and Naseem, 2008).

Furthermore, interpretivism is distinguished from positivism in that information is firmly located within the subjective epistemology (Carson *et al* 2001). The interpretative orientation, therefore, is an appropriate epistemological orientation to address the project's overall aim because the pursuit of objectivity in the project's findings is virtually impossible given the subjective selection of details that were reported. The interpretative orientation, therefore, reinforces that there is no absolute truth to come from the project, only the pursuit of in-depth perspectives about the role of occupational health physiotherapy from different stakeholders.

4.4 Case study research design

This project used a case study design and was managed according to the principles of case study research. Case study research explains, describes or explores contemporary real-life phenomena in the everyday contexts in which they occur (Yin, 2009). It is considered a robust research approach, particularly when a rich, in-depth appreciation of an issue, event or phenomenon of interest is required (Gulsecen and Kubat, 2006). From these viewpoints, the central tenet of case study research is the need to explore a phenomenon in-depth and within its natural context.

There are a number of advantages to employing case study research. Firstly, it is suitable for developing an understanding of particular factors within the context of the whole case, secondly, any data collection methods can be used as long as they are "practical and ethical" (De Vaus, 2001, p.231). In the context of this project, the advantage of using case study research is that the role of occupational health physiotherapy can be explored and understood within the particularities of two occupational health departments, both in a tangible sense where occupational health physiotherapy is already embedded (Hospital A,

Case 1) and in a hypothetical sense by exploring its potential role (Hospital B, Case 2). Thus, the contextual limitations of undertaking a project of this nature are minimised.

The designing of the case study is of paramount importance. Researchers can use either a single case or multiple case study design depending on the research phenomena (Yin, 2009). A single case study design is vulnerable should the case turn out not to be what it was thought to be, and requires the researcher to keep the case under constant review (Yin, 2009). For this project, I made use of a multiple case study approach because employing multiple cases is less vulnerable and would yield more robust findings compared to a single case study. The multiple cases in the project were two occupational health departments situated within different NHS hospitals.

Stake (2006) highlighted three different types of case studies, namely intrinsic case studies, which seek to develop a better understanding of a particular case but do not test abstract theory or generate new theoretical explanations; instrumental case studies, which provide insight into an issue or refines a theoretical explanation and may or may not include an additional deviant or atypical case to supply even more information; and collective case studies, which is the extensive evaluation of several cases to generate hypotheses, identify causal processes and develop theory. For this project, I selected an instrumental case study approach because it offered in-depth insights into the role of occupational health physiotherapy and the possibility of transferability to other settings. In addition, in the context of this project which aims to explore the role of occupational health physiotherapy, the selection of a NHS hospital without an occupational health physiotherapist could be regarded as the deviant or atypical case to provide even more information about the topic.

Yin (2009) identified five important components that need to be considered when designing a case study:

(a) A study's question(s);

(b) Its proposition(s), if any;

(c) Its unit(s) of analysis;

(d) The logical linking of the data to the propositions; and

(e) The criteria for interpreting the findings.

The research question for this project was developed following a review of the literature that informed the theoretical framework (See Chapter 3). The project's proposition is that the combined perspectives of different stakeholders will have a greater impact than each stakeholder group alone on advancing the role of occupational health physiotherapy (See Chapter 3). According to Yin (2009) case study designs may be holistic, where the case (or cases) is studied as a whole as one unit of analysis, or embedded, where there are multiple units of analysis within the case (or cases). For this project, I used a holistic unit of analysis in order to explore the collective perspectives of different stakeholders on the role of occupational health physiotherapy. Semi-structured interviews were used as the data collection method and the data was linked to the proposition for alignment with the project's objectives (See Chapter 5). The framework analysis technique was employed for interpreting the findings of the interviews and to inform the development of a multiple-perspective conceptual framework in order to advance the practice of occupational health physiotherapists.

Finally, according to Yin (2009) case study research can be exploratory, descriptive or explanatory. For this project, although the cases were predominantly exploratory, I also used it to describe the development of a multiple-perspective conceptual framework in order to advance the practice of occupational health physiotherapists.

4.5 The selection of case study sites

This project was conducted at two NHS hospitals. I strategically selected them because I was not affiliated with either NHS hospital nor did I provide any line management or treatment to any stakeholder groups, thus eliminating the effects of coercion and conflicts of interest. Both NHS hospitals offered in-house occupational health services. In addition, one had a dedicated occupational health physiotherapist (Hospital A, Case 1) while the other did not (Hospital B, Case 2). This strategic selection of NHS hospitals permitted a dual exploration of the role of occupational health physiotherapy both in a tangible sense where occupational health physiotherapy was already embedded (Hospital A, Case 1) and in a hypothetical sense by exploring its potential role (Hospital B, Case 2).

These two NHS hospitals provide care for a London Health Authority and are designated acute care hospitals. They are comparable in terms of size, bed availability, number of staff employed and patient throughput. Both also feature similar services, such as maternity care, accident and emergency, orthopaedic, general medicine and surgery and child health and have educational links through academic partnerships. The two NHS hospitals have the same structural problems in that they have a combination of century-old buildings and new buildings.

Although the two NHS hospitals were geographically close to each other, each serves a very different population. Hospital A (Case 1) is situated in an affluent area serving a largely homogenous population. Hospital B (Case 2) on the other hand serves a more culturally diverse population and is situated in a relatively deprived area. The working cultures of the two hospitals are also different. Hospital A (Case 1) has a culture that supports open and honest perspectives from its employees and there is recognition when differences exist. At Hospital B (Case 2), however, there is a different culture, which is less open to discussion of problems and differences, and most discussions happen ‘behind close doors’, which has led to the development of an atmosphere of distrust and further impeded open discussion.

4.5.1 The challenges associated with selecting the case study sites

A lengthy negotiation process took place with various NHS hospitals that had a dedicated occupational health physiotherapist until one was eventually found. This is because several occupational health physiotherapists refused to allow their team members to divulge information about their occupational health physiotherapy service.

I was unable to extract a valid reason as to why access to the occupational health physiotherapy service was being obscured by these physiotherapists. Although I found this experience to be disappointing, given that my project was designed to advance the role of occupational health physiotherapy, I had to reflect on the possible reasons for being refused access to carry out my research project in these occupational health departments.

My initial thought was that the occupational health physiotherapists were hesitant to become involved in any research that may have required assistance or effort on their part because of their busy workload. It was also possible that the occupational health physiotherapists were involved in their own research or service improvement projects that could have been jeopardised by my project. On a more complex note, it was possible that the occupational health physiotherapy service was not running effectively and any team disclosures could compromise the provision of the service, or, conversely the service was running very efficiently and any discussion about sharing practices could risk their competitiveness in recruiting occupational health physiotherapy staff and gaining external business.

4.6 Sampling and gaining access to participants

Purposive sampling was the method of sampling because it allowed for the selection of only those participants who were considered valuable to the project (Bernard, 2002). I selected occupational health clinicians taking into account their years of experience and professional group, and I selected workforce managers if they were involved in the commissioning of occupational health services. Clients were recruited into the project if they had attended at

least one session of occupational health physiotherapy (Hospital A, Case 1) or outpatient physiotherapy (Hospital B, Case 2) following an occupational health referral within the last six months, over which the recall of experiences was considered realistic (Ouellette *et al* 2007). This project is qualitative in nature, therefore statistical power calculations to determine sample sizes were not appropriate.

I wrote to the occupational health and workforce managers at each NHS hospital in order to inform them of the project and to gain access to participants (See Appendices 6-9). I identified these managers as crucial gatekeepers for facilitating access to the project sites and recruiting participants. Researchers require sound interpersonal skills in order to develop rapport with gatekeepers (Lee, 2005) and, therefore, I strived to develop friendly relationships with them. Approximately two weeks after writing to the managers, I telephoned them in order to gauge their level of support for the project and both expressed an interest in taking part. I then agreed to a date and time to attend one of their team meetings. At the respective team meetings, I met the occupational health and workforce teams, explained the details of the project and handed out project packs to those participants that were deemed suitable for the project according to the inclusion criteria. Each project pack consisted of an information sheet, consent form and a prepaid return envelope (See Appendices 11, 13, 15, 17, 23).

I left project packs with the respective managers to hand to those participants that were determined during the meeting as potentially suitable for the project but were not present at the team meeting. Occupational health clinicians and workforce managers were recruited in the capacity of their professional roles and thus there could be no substitution for those that chose not to take part or dropped-out. Data saturation, which is the point at which the collection of new data does not shed any further light on the issue under investigation (Mason, 2010), could not, therefore, be achieved with occupational health clinicians and

workforce managers. Occupational health clinicians and workforce managers were excluded if they were unwilling or unable, for any reason, to give their written consent.

In addition, I sought permission from the respective occupational health manager to display a client recruitment poster in the reception area of each occupational health department in order to recruit clients for the project (See Appendices 26-27). The posters included information on the purpose of the project; a summary of the criteria used to determine eligibility; a brief list of participation benefits; and the names and contact details of the researcher and academic advisor. Occupational health clinicians and workforce managers were also asked to invite clients to participate on an individual basis and encourage a diverse range of clients to take part.

Clients that were interested in taking part in the project were advised to contact the researcher or the academic advisor and, following discussion, those that met the inclusion criteria were posted a project pack consisting of an information sheet; consent form; a client contact details form; and a prepaid return envelope (See Appendices 19, 21, 23-25). Clients were excluded if they were unwilling or unable, for any reason, to give their written consent; currently taking formal action or were being formally investigated by the NHS hospital; whose treatment had medico-legal implications; and could not adequately understand written and verbal information in English. The project would have welcomed the perspectives of clients who understood languages other than English, however, there was no funding for the costs related to the translation of documents and the use of interpreters. However, it must be noted that potential clients being recruited for the project were also employees at their respective NHS hospital and, therefore, the use of the English language did not appear to be a barrier to the project. I also included some optional diversity and ethnicity questions to permit data about these characteristics to be collected.

Several strategies were employed to recruit a diverse range of clients, namely that two NHS hospitals were used, which although geographically located close to one another, served different populations, and the client recruitment protocol aimed for diversity based on age, gender, ethnicity, health and disability. The recruitment of clients continued until data saturation was achieved. The lead outpatient physiotherapist at Hospital B (Case 2) was informed of the project and that clients that attended at least one session of outpatient physiotherapy following a referral from the occupational health department were eligible to take part in the project (See Appendix 10).

All participants were required to complete the consent form and return it using the prepaid return envelope provided (See Appendix 23). The CSP (2005) recommends that prospective participants should have sufficient time to decide if they wish to take part or not. For this project, participants were given a minimum of 24 hours following receipt of the participant information sheet to decide whether to take part or not. Participants were included in the project only upon receipt of a fully completed consent form.

4.7 Methods of data collection

Semi-structured interviews were used as the method of data collection. A summary of the data management at each NHS hospital is illustrated in Tables 5 and 6.

Table 5: Summary of data management for Hospital A (Case 1)

Data sources	Data collection methods	Sample size
Phase 1: Occupational health clinicians	Semi-structured interviews	n=9
Phase 2: Workforce managers	Semi-structured interviews	n=3
Phase 3: Clients	Semi-structured interviews	n=5

Table 6: Summary of data management for Hospital B (Case 2)

Data sources	Data collection methods	Sample size
Phase 1: Occupational health clinicians	Semi-structured interviews	n=5
Phase 2: Workforce managers	Semi-structured interviews	n=2
Phase 3: Clients	Semi-structured interviews	n=4

4.7.1 Rationale for using semi-structured interviews

Semi-structured interviews were used because it is a managed verbal exchange in order to cover areas of interest to the researcher, but are flexible enough to allow participants to freely expand on areas if they wished to do so (Clough and Nutbrown, 2007). The researcher also has the flexibility to restructure questions, listen attentively, pause, probe or prompt the participant appropriately in order to gather new and interesting information (Clough and Nutbrown, 2007). From these viewpoints, the central tenet of semi-structured interviews is that they foster an open-ended, guided conversation approach, and in the context of this project, it ensured that specific information needs about the role of occupational health physiotherapy from the project sites were elicited (See Appendices 12, 14, 16, 18, 20, 22).

The specific information needs involved exploring the experiences and reasoning of different stakeholders on the role of occupational health physiotherapy in order to inform the development of a multiple-perspective conceptual framework. This approach is supported by Patton (2002), who stated that the flexibility of semi-structured interviews allows for fundamental lines of inquiry to be pursued with each participant while permitting spontaneous conversations to take place so that a free-flowing adaptable dialogue is

maintained for new areas or ideas that were not anticipated at the start of the project to be uncovered.

Structured interviews would not be appropriate for this project because they provide information related only to a specific set of questions, which is often limited, whereas the flexible rapport during a semi-structured interview can enable a greater degree to which information is provided (Patton, 2002). In addition, the rigid nature of structured interviews might annoy participants when a question is asked that they have already answered (David and Sutton, 2004). With semi-structured interviews, the nature of the questions can be modified depending on the direction of the interview so that previously answered questions are not asked again and key issues not identified before the interview are allowed to emerge throughout the discussion (David and Sutton, 2004).

Unstructured interviews are highly unpredictable conversations and researchers require a very skilful approach based on the fact that participants are not simply participants answering the questions posed by the researcher (Johnson, 2001). The researcher, therefore, needs to be able to help the participant talk at great length and in considerable depth while ensuring that they do not stray too far from the focus of the project (Gubrium and Holstein, 2001). In this respect, I regard myself as a novice researcher with limited experience conducting interviews, therefore, unstructured interviews (that is, with no interview schedule) would pose a major challenge and would be possibly unproductive if I was unable to pursue, as stated by Patton (2002), fundamental lines of inquiry with each participant and maintain a free-flowing dialogue throughout the interview.

4.7.2 Pilot study interviews

An important element to the interview preparation was the implementation of a pilot study. The purpose of a pilot study is to establish whether there are flaws, limitations or other weaknesses in the interview process so that necessary revisions can be made prior to

carrying out the actual interviews (Kvale, 2007). A pilot study can also aid in improving and refining the interview questions (Kvale, 2007). A pilot study should be conducted with participants that have similar interests as those that will participate in the project (Kvale, 2007). I carried out pilot interviews with two occupational health clinicians, two workforce managers and three clients at my organisation. Minor amendments, such as revising ambiguous and difficult questions, and shortening long-winded questions, were made to the interview schedule in order to improve and refine the interview process and questions. The findings of the pilot interviews were not included as part of the final project report. Following the pilot study interviews, my advisory team reviewed the revised interview schedules and provided feedback, resulting in some questions being rearranged so that questions that were deemed to be enquiring about distinct issues were separated into different questions.

4.7.3 Procedure for conducting semi-structured interviews

I identified a private meeting room at each NHS hospital for the purpose of conducting the face-to-face interviews. In order to ensure confidentiality, interviews with clients were conducted in a neutral room within the NHS hospital but not within the occupational health department (Case 1) or outpatient physiotherapy clinic (Case 2) where the client received treatment. Occupational health clinicians and workforce managers were given the option of having the interview carried out in their work office if it was appropriate to do so in order to increase convenience. The interviews were arranged at different times of the day to accommodate the lifestyles and work patterns of participants.

I considered telephone interviews as a potential back-up if participants were unable to meet face-to-face. However, I eventually decided against them. Shuy (2002) examined the merits of both face-to-face and telephone interviews and concluded that although telephone interviews have a higher response rate than face-to-face interviews, there was a reduced interviewer effect. Accordingly, telephone interviews produce less thoughtful answers and it is harder for the interviewer to probe as there are no non-verbal cues (Shuy, 2002).

At the start of each interview I introduced myself to the participant and asked them if they were still willing to take part in this project. I began the interview with the approach adapted from Rose (1994):

(a) I explained to the participant the purpose of the interview;

(b) I clarified the topic under discussion;

(c) I informed the participant of the format of the interview;

(d) I informed the participant of the approximate length of interview;

(e) I assured the participant of confidentiality and anonymity;

(f) I explained the purpose of the tape recorder and asked permission to use it;

(g) I assured the participant that they could seek clarification of questions;

(h) I assured the participant that they could decline to answer any questions;

(i) I informed the participant that there would be opportunity during the interview to ask questions;

(j) I assured the participant that there were no right or wrong answers;

(k) I informed the participant of the support available if there was any emotional distress from discussing a sensitive situation; and

(l) I informed the participant that they could stop the interview at any time without having to give a reason.

I explained that my stance in the interview process was as a researcher, which would include facilitating the conversation yet being as neutral as possible to encourage them to express their true feelings and experiences; probe beneath the surface of their comments and responses; and monitor the time allotted for the whole interview. I scheduled the length of the interview to be approximately one hour. Smith (2003) stated that interviews should usually last for about an hour to prevent participants from tiring or getting bored.

During the interview, I asked questions in a flexible and neutral tone in order to put the participant at ease and encourage them to openly discuss their views. Throughout the

interviews, I specifically sought not to display greater knowledge than any of the participants nor impose my personal opinions or professional status. I also used probes when I did not fully understand a participant's response, when their answers were vague or ambiguous or when I needed to obtain more specific or in-depth information about a particular issue.

At the end of each interview, I thanked the participant for taking part and I offered them the opportunity to ask any questions. A written summary, with the help of the participant, was produced. This summary synthesised and confirmed significant key points in the discussion in order to ensure that the main areas of the discussion were covered and verified by the participant. This process is known as 'member checking', whereby the accuracy of the data is verified by the participant to confirm the key findings of the discussion and the main areas of interest (Curtin and Fossey, 2007). I gave all participants the details of an independent support service, which is a free and confidential counselling service, and they were advised to contact this service if they felt emotionally distressed after the interview.

4.8 Data collection tool

I used open-ended and non-directive interview schedules as the data collection tool in order to gather rich in-depth and contextualised perspectives on the role of occupational health physiotherapy from different stakeholders. I avoided medical jargon so that participants felt familiar and comfortable with the language I used and to put them at ease. My advisory team reviewed the interview schedules and provided feedback. I used tape recordings for data collection during the interviews, however I only took written notes for those participants that did not wish to be recorded but were still willing to participate.

I acknowledge that there is certainly less bias and more information retained through tape-recording than with written notes because the tape-recorder could be replayed and the interview experience is encountered more than once (Tessier, 2012), however, this does not mean that taking written notes for those participants that did not wish to be recorded but

were still willing to participate is not a viable option. In this project, all notes taken were written verbatim during the actual interview. However, unlike a tape-recording in which there is a complete chronological recording of events, the written notes taken were a synopsis of the responses of participants. The advantage of taking written notes for those participants that did not want to be recorded was that it allowed for a larger and more diverse sample size in order to gather the multiple perspectives required to explore the role of occupational health physiotherapy. In order to reduce any bias with taking written notes, member checking was performed at the end of each interview to ensure the perspectives of the participants were being represented and not the views of the researcher (Curtin and Fossey, 2007).

4.9 Data analysis

Framework analysis was selected as the data analysis technique because it emphasises transparency and the links between the stages of the analysis (Ritchie and Lewis, 2003). The central approach of framework analysis is a series of interconnected stages that allow the researcher to move back and forth across different sources of data until a coherent account becomes apparent (Ritchie and Lewis, 2003). This process results in a constant refinement of themes that may assist in the development of a conceptual framework (Smith and Firth, 2011), which was indeed the intended outcome of this project.

I transcribed the data verbatim from the tape recordings and written notes. which were then analysed using the five-stage framework analysis technique developed by Ritchie and Spencer (1994), namely:

Stage 1: Familiarisation

At this stage, I became immersed in the details of each transcript by repeatedly reading them in order to become familiar with the richness, depth and diversity of the data and began to conceptualise it.

Stage 2: Identifying a thematic framework

During this stage, I reviewed each transcript and made notes and highlighted text descriptions of key issues, concepts and initial themes so that I could explore the selected data in more detail. Next, I began to read the selected data in greater detail in order to devise a thematic framework. The process of formulating the thematic framework was not an automatic or mechanical process, but involved both logical and intuitive thinking. I had to, therefore, make judgements about the meaning, the relevance and the importance of issues and about implicit connections between ideas.

Stage 3: Indexing

Indexing is a process whereby the thematic framework is systematically applied to the data in its textual form. During this stage, I read all the data, not just those I selected for the thematic framework. I then wrote the indexing references on the margins of each transcript using a numerical system that linked back to the thematic framework. Again, the process of indexing is not a routine process because it involves making numerous judgements as to the meaning and significance of the data. For each transcript, therefore, I inferred and decided upon its meaning, both as it stood and in the context of the project as a whole, and then I recorded the appropriate indexing reference. Initially, the process of indexing and identifying a thematic framework can seem contradictory. However, it ensured that the initial themes identified were refined until the whole picture emerged and that themes were grounded in the participants' descriptions.

Stage 4: Charting

At this stage, I organised the data from the original transcripts and rearranged them according to the appropriate theme to which they were related. This process is referred to as charting. I captured each theme, with descriptions from participants, on a different chart. Although some methods of qualitative analysis rely on a cut-and-paste approach, where chunks of verbatim texts are regrouped based on the corresponding theme, charting also

involves abstraction and synthesis. Next, I referenced the original text so that the source could be traced.

Stage 5: Mapping and interpretation

This stage involved the systematic process of mapping and I was guided by the themes that emerged from within the data. I reviewed the charts in order to search for patterns and connections within the data which aided in the development of the conceptual framework. This stage involves not only the aggregating of patterns and connections, but also interpreting the salience and dynamics of the issues in order to develop core concepts from the multiplicity of evidence.

4.10 Research trustworthiness

Qualitative research differs from quantitative research in its fundamental assumptions, research purposes and inference processes, thus making the conventional validity, reliability and objectivity criteria unsuitable for judging its research findings (Shenton, 2004). Recognising this gap, Lincoln and Guba (1985) proposed four criteria for evaluating research trustworthiness in qualitative research, namely credibility, transferability, confirmability and dependability. However, for the criteria of trustworthiness to be fulfilled, the process must be rigorous. According to Morse *et al* (2002) research without rigour merely reports fiction and is rendered useless. The rigorous demonstration, therefore, of how each criterion of trustworthiness is met is essential for high-quality research. The rigor strategies are discussed in the next section.

4.10.1 Credibility

Credibility refers to the vividness or faithfulness of the description to the phenomenon (Shenton, 2004). In this project, credibility was demonstrated through triangulation of data sources where a wide range of participants (occupational health clinicians, workforce managers and clients) were used. The triangulation of data sources allowed the

perspectives of different stakeholders to be verified against others under scrutiny in order to enhance the contextual data relating to the case sites (Farmer *et al* 2006). Site triangulation was also employed whereby two organisations (that is, two NHS hospitals) were selected to reduce the effects of cultural factors peculiar to one institution (Curtin and Fossey, 2007). Furthermore, Curtin and Fossey (2007) stated that when similar findings emerge at different sites, the findings may have greater credibility in the eyes of the reader.

I also used different strategies to ensure that participants remained honest when contributing data. In particular, all participants that were offered the opportunity to take part in the project were also able to decline the offer in order to make certain the data collection sessions involved only those participants genuinely willing to take part and prepared to offer data freely and honestly. I also encouraged participants at the beginning of each interview session to be open and honest in their responses and I reiterated that there was no right or wrong answers to the questions that were being asked. I also emphasised my independent stance as a researcher in the project so that participants could talk openly about their experiences without fear of losing their credibility in their organisation.

During the interview, I used iterative questioning, through which probes were used to clarify information from the participants in order to detect any contradictions in the information provided and decide whether or not to discard any suspect data. Member checking was performed in order to check the accuracy of the data (Curtin and Fossey, 2007). In this project, participants were asked to confirm significant key points of the discussion at the end of the interviews to ensure that the main areas of interest were covered and verified by the participant (Curtin and Fossey, 2007).

Thick descriptions using the participants' own words were used to promote credibility because it l enabled the reader to assess the authenticity of the findings and how well they embraced the actual interviews (Lincoln and Guba, 2000). I also had frequent debriefing

sessions with my advisory team and, through these expert peer-debriefing meetings, I was able to discuss my data analysis and interpretation so that the more experienced team members could bring to my attention any flaws in my analysis and interpretation. The debriefing sessions also allowed me to develop my interpretation and recognise my own preconceptions and assumptions.

A second reviewer (Lead Development and Research Physiotherapist), who was not part of the project team, independently analysed the data for emerging themes and the final themes were selected following discussion. This second reviewer was not inhibited by closeness to the project and therefore was able to view the data with real detachment and provide a fresh perspective (Ballinger, 2004).

4.10.2 Transferability

Transferability describes the extent to which research findings can be applied in another context (Shenton, 2004). Stake (2006) suggested that although each case may be unique, it is also an example of a broader group, and therefore offers the prospect of transferability. In this project, a brief description of each case was provided in order to establish the context in which the project was undertaken and to allow readers to have a proper understanding of it and be able to judge for themselves the applicability of the project findings to their own settings and context. The use of thick descriptions also enables readers to compare the inferences in the data with those they have seen in their own situation and determine how far they can be confident in transferring to their situation the findings of this project.

4.10.3 Confirmability

Confirmability refers to the extent to which the characteristics of the data can be verified by those that review the research findings (Shenton, 2004). A key criterion for confirmability is the degree to which the researcher admits their own predispositions in order to make certain that they are minimised so that the findings reflect the views of the participants, rather than

the researcher's own preferences (Shaw and Gould, 2001). Throughout the project, I took a reflective stance, and by doing so, I attempted to minimise my feelings and thoughts in order for the findings of the project to reflect the participants' perspectives rather than my own preferences. Another feature of confirmability is for the reader to determine how far the data and constructs that emerge from it may be accepted (Jackson, 2003). In this regard, I described the project in as much detail as possible so that readers could trace step-by-step the decisions I made and the procedures I followed, a process Jackson (2003) described as an audit trail, in order to show how the data eventually led to the development of a conceptual framework.

4.10.4 Dependability

Dependability refers to the coherence of the research process and the way the researcher accounts for the processes of the project to enable a future researcher to repeat the work but not necessarily to obtain the same results (Shenton, 2004). In this project, I achieved dependability by providing a detailed description of the research methodology and its implementation; by describing the operational details of data gathering; and through a reflective appraisal of the project so that the impact of the project and the areas of learning could be identified.

4.11 Reflection as an insider and outsider

I am employed in a full-time post as a Senior Occupational Health Physiotherapist at an NHS hospital in London, and being an NHS employee I had insider knowledge of NHS-wide processes that assisted me in gaining access to the research settings, being accepted by participants and becoming registered with both NHS hospitals through NHS-to-NHS agreements. I benefited, therefore, from being an insider. However, I was not affiliated with the two NHS hospitals selected for this project, both of which were largely unfamiliar to me, which was not only ethically appropriate but also gave me an outsider's perspective. This was advantageous because, according to Bonner and Tollhurst (2002), the qualitative

researcher should preferably enter the research setting as a stranger so that the setting can be viewed with greater insight and more sensitivity not having been decreased by familiarity. Furthermore, participants taking part in the project did not know me in the capacity of a clinician (that is, they only knew me only as a researcher), which Bonner and Tollhurst (2002) stated can reduce the possibility of role clashes that can occur with insiders. I was able to, therefore, combine insider advantages with outsider advantages.

4.12 Reflexivity

Reflexivity is a process whereby the researcher directly acknowledges that they are an active participant throughout the research process and therefore has a significant influence on the development of the research and engagement with participants (Finlay, 2003). Finlay (2003) also highlighted the necessity for the researcher to be explicit about the historical, cultural and philosophical views of the world they hold as these have some influence on the research process. Earlier on, I presented a personal reflection and exposed my historical, cultural and philosophical views of the world in order to establish the premises upon which this project is based (See Chapter 1). By making this declaration, I attempted to minimise them so that the findings of the project would reflect the participants' views rather than my own preferences. Another aspect I had to consider with this project is my dual role as both a clinician and researcher. As such, I offset a potential role clash by taking a reflexive stance throughout the course of what was a four-year research project. This extended period of study time allowed me to develop a strong research identity.

During the early stages of the project, I became familiar with the data, and towards the latter stages, I started to interpret the data in order to address the projects' overall aim and objectives. During these stages, Berg (2001) stated that reflexivity and careful self-monitoring is necessary so that the researcher's interpretation does not go beyond what is mentioned by the participants as this would lead to the presentation of the researcher's perspectives instead of those of the participants. In this regard, I made use of a personal

diary to make certain that I constantly reflected upon my personal views and monitor their relationship with the project.

Throughout the project's duration, my stance was to remain honest and respectful towards participants to create an open and trusting researcher-participant relationship and to minimise the prospect of any power relationships. The regular debriefing sessions with my academic advisory team helped me remain open-minded, sensitive and empathetic to the responses of participants in order to maintain the integrity of the project. This allowed me to probe beneath the surface of their comments and responses so sensitive situations could be discussed while consciously refraining from imposing my personal views.

4.13 Gaining research governance permission and ethical approval

After completing the project risk assessment form, I filled out the University Research Ethics Committee (UREC) review form. This form was formally submitted to UREC in November 2015 and ethical approval was granted in January 2016 (See Appendix 1). I then formally registered the project with the Integrated Research Application System (IRAS) and submitted a completed IRAS application form to the NHS Research Ethics Committee (NHS REC) in January 2016. The project was considered by the NHS REC research administrator to have no material ethical issues and was subsequently sent for proportionate ethical review. The NHS REC confirmed that the project did not require NHS ethical review under the terms of the governance arrangements for research ethics committees (See Appendix 3). I then submitted the NHS REC letter to the Research and Development (R&D) office at each participating NHS hospital and both R&D offices confirmed that the project did not require R&D approval (See Appendices 4-5). It was not necessary for me to hold an honorary contract with either NHS hospital because I am an NHS employee. The letters from the NHS REC and R&D offices were then submitted to the Clinical Governance Departments at each participating NHS hospital in order for the project to be registered at each hospital site. Registration at both sites was obtained in February 2016.

4.14 Ethical considerations

All research should always contain statements of ethical considerations as research that is scientifically unsound can never be ethical (Sim, 2010). The project was conducted in accordance with the University Ethics Framework (Middlesex University London, 2014); the NHS Clinical Governance Framework for Health and Social Science Research (Department of Health, 2008b) and the CSP Core Standards of Physiotherapy Practice (CSP, 2005). The ethical principles of beneficence, non-maleficence, autonomy and justice were upheld at all times during the course of the project.

I invited participants to take part in the project using information sheets (See Appendices 11, 13, 15, 17, 19, 21). The purpose of the information sheets was to assist participants in making an informed decision about whether to take part or not. The information sheets provided an explanation as to why they were chosen to participate; the purpose of the project; what participation involved, the risks and benefits; that participation in the project was completely voluntary; that they were free to withdraw from the project at any time before the completion of the data analysis without having to give a reason (because after data analysis, it would be impossible for the project team to comply); that their identity would be kept anonymous; and that the information they provided would be confidential and not be linked to their health records or divulged to their line manager. Participants were informed that if they disclosed any illegal or disciplinable professional activity during the interview, then I would have to share this information with an appropriate person at their NHS hospital to inform them of the situation and to get advice. Participants were also informed that should this action need to be taken, I will notify them first. Participants were assured that their general opinions would not be disclosed.

Participants could refrain from answering any questions that they were uncomfortable with without loss to the benefits that they were otherwise normally entitled to and their decision of whether to take part or not did not impact their contract of employment with the NHS hospital

in any way whatsoever. Participants were given the contact details of an independent support service if they became emotionally distressed because of discussing a sensitive situation. I obtained written consent from all participants by asking them to complete and return a consent form. I assured participants that all information from the project would be grouped together for any presentation or publication purposes and would not identify anybody individually.

All personal data from the project will be stored for 12 months after the project has ended and then destroyed. However, the anonymised research data will be kept for five years after the project has finished to allow for dissemination of the work through peer-reviewed publications and conference presentations. At the end of the five-year period, all anonymised data will be destroyed. I handled all information received from participants in a confidential manner by storing it in a locked filing cabinet and on a password-protected computer. Only the academic advisors and I had access to this information. However, participants were informed that authorised auditors may require access to some parts of the collected data to check if the project is being carried out correctly and that all auditors had a duty of confidentiality to them as research participants during the process of meeting this regulatory requirement.

The names of the NHS hospitals were kept confidential by not referencing the names of the hospitals throughout the project or in any publications or presentations. Pseudonyms were used when reporting direct quotes so that the identities of participants were not revealed. The contact details of both the academic advisor and I were made available on the information sheets for those participants that required more information about the project. Participants were informed that they could contact the academic advisor independently if they felt reluctant, for any reason, to contact the researcher directly. Participants could also contact the UREC Chair if they remained dissatisfied about the way they had been dealt with during the project or if they had other concerns and wished to complain formally.

The UREC was to be informed of any adverse or untoward events or any significant proposed deviation from the initial project proposal using the NHS hospital incident form or a substantial amendment form, respectively. I had no affiliations with the NHS hospitals selected for this project, and, therefore, I had no conflicts of interest or commercial gain from carrying out this research project. Consequently, I did not provide any line management or treatment to any participant, and so there were no existing power relationships that could be perceived as coercion.

4.15 Summary

In summary, this chapter has provided a justification for a qualitative, interpretative, case study research methodological approach. In addition, the relevance of qualitative research and its applicability to the physiotherapy profession was also discussed. The data collection method selected for the project is likely to provide a coherent picture about the role of occupational health physiotherapy by providing in-depth, meaningful and holistic perspectives from different stakeholders. The semi-structured interviews used as the data collection method is well established within the qualitative inquiry literature and from an interpretative perspective. The next chapter will present the findings and discussion of the project.

CHAPTER FIVE: FINDINGS AND DISCUSSION

5.1 Introduction

This chapter presents seven core themes that emerged across three stakeholder groups at two NHS hospitals, with each theme containing a number of sub-themes. Two themes, namely specific vocational rehabilitation (sub-theme: work-specific rehabilitation) and health promotion and training (sub-theme: improving staff health) crosscuts different stakeholder groups, while the remaining five themes were located within the same stakeholder group. The themes are described in turn using rich and thick quotations. Colour coding was employed to differentiate the perspectives of different stakeholders across the two cases. In total, 28 participants were interviewed and the demographic characteristics are presented in Table 7. In an attempt to overcome the risk of elite bias, which refers to the over-representation of data from participants who may be better informed or able to articulate their perspectives more clearly (Miles and Huberman, 1994), a tally was kept of how often quotes were used from each participant. When many participants responded in a similar manner and there was a choice of quotes to illustrate a theme, quotes were then taken from participants who had previously been less frequently quoted to ensure that the data presented was representative across all stakeholder groups. Table 8 lists the themes and sub-themes that emerged and are presented in relation to the three objectives of this project. Examples of how the data analysis were analysed is presented in Appendix 28.

Table 7: Demographic characteristics of participants							
Occupational health clinicians							
Site	**Occupation**	**Gender**	**Experience**	**Employment status**			
Hospital A (Case 1)	OH Doctor	Male	25 years	Part-time			
	OH Nurse**	Female	16 years	Part-time			
	OH Nurse	Female	8 years	Full-time			
	OH Nurse	Female	4 years	Part-time			
	OH Nurse	Female	5 years	Full-time			
	OH Nurse**	Female	12 years	Full-time			
	OH Nurse	Female	3 years	Full-time			
	OH Nurse	Male	3 years	Full-time			
	OH Physio	Female	6 years	Full-time			
Hospital B (Case 2)	OH Doctor	Female	14 years	Part-time			
	OH Nurse	Female	13 years	Full-time			
	OH Nurse	Male	8 years	Full-time			
	OH Nurse**	Female	17 years	Full-time			
	OH Nurse**	Female	12 years	Full-time			
Workforce managers							
Site	**Occupation**	**Gender**	**Experience**	**Employment status**			
Hospital A (Case 1)	Manager	Female	4 years	Part-time			
	Manager**	Female	17 years	Full-time			
	Manager	Male	2 years	Full-time			
Hospital B (Case 2)	Manager	Female	8 years	Full-time			
	Manager	Male	5 years	Full-time			
Clients							
Site	**Occupation**	**Gender**	**Appointments**	**Employment status**	**Age range**	**Ethnicity**	**Serious health problems/disability**
Hospital A (Case 1)	Care assistant	Female	6 sessions	Full-time	40-55	BAME*	Yes
	Domestic	Female	8 sessions	Full-time	40-55	BAME*	Yes
	Co-ordinator	Male	4 sessions	Full-time	25-39	White	No
	Staff nurse	Female	12 sessions	Full-time	40-55	White	Yes
	Secretary	Female	2 sessions	Full-time	40-55	White	No
Hospital B (Case 2)	Care assistant	Female	3 sessions	Full-time	25-39	BAME*	Yes
	Secretary	Female	4 sessions	Full-time	20-35	White	No
	Secretary	Female	4 sessions	Full-time	40-55	White	No
	Staff nurse	Female	8 sessions	Part-time	40-55	White	Yes
*BAME: Black, Asian and Minority Ethnic			**Written notes taken (participants that did not wish to be recorded but still willing to participate)				

Table 8: List of themes and sub-themes

Objective 1: To explore how different stakeholders perceive the characterisations of the role of occupational health physiotherapy:

Theme 1: **Agent to organisation and client**
Sub-themes:
- Balancing clinical and organisational needs
- Enhancing the influence of occupational health
- Employer needs assessment
- Organisational analysis and development
- Linking staff needs to the organisation
- Promotion of occupational health within the organisation

Theme 2: **Impartial approach**
Sub-themes:
- Sympathetic and impartial approach
- Client education and communication

Objective 2: To explore what different stakeholders expect the role of occupational health physiotherapy to provide:

Theme 3: **Direct access care**
Sub-themes:
- Rapid access intervention
- Dealing with occupational health challenges

Theme 4: **Expertise and evidence-based**
Sub-themes:
- Advanced knowledge and clinical reasoning
- Expert opinion
- Evidence-based practice
- Providing an additional perspective

Theme 5: **Role identity**
Sub-themes:
- Managing role conflict
- Personal qualities and attributes
- Role substitution

Objective 3: To explore the preconceptions of different stakeholders of the contribution of occupational health physiotherapy to occupational health services:

Theme 6: **Specific vocational rehabilitation**
Sub-themes:
- Functional capacity evaluations
- Job demand analysis
- Work-specific rehabilitation
- Support for injuries at work

Theme 7: **Health promotion and training**
Sub-themes:
- Improving staff health
- Job coaching
- Development of job descriptions

5.2 Perceptions of stakeholders of the characterisations of the role of occupational health physiotherapy

5.2.1 Theme 1: Agent to organisation and client

The six sub-themes under this theme are: (1) balancing clinical and organisational needs; (2) enhancing the influence of occupational health; (3) employer needs assessment; (4) organisational analysis and development; (5) linking staff needs to the organisation; and (6) promotion of occupational health within the organisation.

Balancing clinical and organisational needs

Occupational health clinicians characterised the role of occupational health physiotherapy as complex and dual in nature, which involved a balancing act between meeting clinical needs and working within the boundaries of organisational needs. Occupational health physiotherapists were seen as professionals with a higher level of knowledge and clinical reasoning ability compared to primary care physiotherapists. However, there was a concern about embedding physiotherapists in occupational health departments because of the perceived professional isolation, and the general consensus was that a physiotherapist in such a role would have to prove their skills and abilities within an occupational health team and be capable of working independently, with minimal support from a traditional physiotherapy department:

> *"Occupational health physios [therapists] need to work in such a way that they can do their clinical work and understand what the organisation wants and needs. Too often, physios [therapists] adapt a primary care contact role right from the start, and this does not always get the backing of the doctors. They need to work in consultation with the team and understand the pressures of the organisation."* (Hospital A, Case 1, Occupational Health Doctor)

> *"Physios [therapists] in occupational health must have a certain level of skills and competency because the work also involves getting staff back to work. Occupational health physiotherapists have a much higher level of autonomy than most of the other hospital-based roles and are required to show clinical proficiency and independent working. There needs to be an understanding from the beginning how the system works and be able to help staff get back [to work] and recommend to the referring managers how to support them. Physios [therapists] can't [cannot] only treat the pain."* (Hospital A, Case 1, Occupational Health Nurse 3)

The future role of occupational health physiotherapy was seen to be embedded into the occupational health team while also promoting organisational values. The consensus was that a process needs to be in place to allow for a role that incorporates professional autonomy as well as collaboration within the multidisciplinary team and organisation:

> *"A process could be put in place so that the physiotherapist can work with the other professions in the [occupational health] team, and can screen their cases and decide which ones are suitable for them and which ones [are suitable] for the multidisciplinary team … also, if the physio [therapist] can access some of the cases sooner, they can inform the organisation about what the client is capable of, where something does not appear to be right or if the client is not progressing."* (Hospital B, Case 2, Occupational Health Nurse 4)

The success for physiotherapists' maintaining a dual clinical and organisational role appeared to be found in collaborative working with the occupational health doctors and nurses. The relationship between the physiotherapist and other members of the occupational health team did not appear to inhibit professional autonomy:

> *"My mentorship is provided by a [occupational health] consultant, and sometimes [by] the lead nurse. We have developed a programme for development together and have set up parameters that we both adhere to. We have a good working relationship and this helps when I need to tell them something … I find that they are more receptive if they understand what your role is and what you do."* (Hospital A, Case 1, Occupational Health Physiotherapist)

The success of establishing the dual role of occupational health physiotherapists was not only dependent on the strong collaboration with different members of the team, but a central issue was the need for the physiotherapist to facilitate a smooth transition into the department:

> *"We will look for a physio [therapist] that has a broad knowledge base, someone who has integrity, but is also easy going and can fit into the team."* (Hospital B, Case 2, Occupational Health Nurse 3)

> *"We definitely need someone who is flexible, who can challenge the consultants decisions and confident enough to make recommendations to the organisation, even when the manager may disagree with you."* (Hospital B, Case 2, Occupational Health Nurse 4)

Enhancing the influence of occupational health

One perspective of the role of occupational health physiotherapists by occupational health clinicians was that the presence of physiotherapists in occupational health departments could help illuminate what a modern occupational health team structure should resemble and help enhance the influence of occupational health departments in the organisation:

> *"Normally, we are so good in trying to reduce waiting times and triaging a case to the most appropriate clinician, but when it comes to engaging with the organisation, [it] can be quite a slow process. That's [That is] why I think having a modern department, like what was proposed in Boorman's Report, is so really important. My view is that [occupational health] physios [therapists] are an important addition to an occupational health department, not just because they are good with their treatment and interventions, but they also help promote the work that we do in the organisation."* (Hospital A, Case 1, Occupational Health Nurse 2)

The role of occupational health physiotherapy was seen to influence not only the organisation, but was also viewed as a role that could influence the decisions made by occupational health doctors and nurses:

> *"It definitely helps to have access to a physiotherapist because they can help change our minds about what recommendations we make. You know sometimes it's [it is] hard for us to make up our minds, but when we call the physio [therapist] we usually get the answers we want."* (Hospital B, Case 2, Occupational Health Nurse 1)

Employer needs assessment

Occupational health physiotherapists were viewed as being able to examine injury patterns of those who were injured and make appropriate recommendations on what strategies are needed to be in place to address the trends within the organisation:

> *"The [occupational health] physio [therapist] here looks at the patterns of injuries. This is very beneficial because they can map where all the injuries are taking place, which we refer to as the hotspot areas, so they can provide targeted interventions. This definitely helps with proactive management of injury and the organisation and clients love this. I think it's [it is] an important area for [occupational health] physios [therapists] to further develop."* (Hospital A, Case 1, Occupational Health Nurse 4)

> *"One important thing physios [therapists] are good at is going out there, seeing what's [what is] actually needed to make a difference. We [traditional occupational health clinicians] like to do this, but we are so busy, we just don't [do not] have the time."* (Hospital B, Case 2, Occupational Health Nurse 3)

Organisational analysis and development

Occupational health physiotherapists were viewed as a professional group engaging in organisational analysis and development:

> *"There is a trend in the NHS to restructure services, and occupational health services are no different. This involves analysing the organisational setting in terms of change, culture, decision making and development … and this is where [occupational health] physiotherapists can help to facilitate new ideas."* (Hospital A, Case 1, Workforce Manager 3)

> *"To develop the occupational health service in this organisation, we need to have [physio] therapists that not only perform their clinical duties, but also calculate the return on investment for the organisation with their services. With all the staff shortages we face and the lack of proper recruitment drives, we need [physio] therapists who can identify the needs of the organisation and make developments, like new ways of working, and cut costs."* (Hospital B, Case 2, Workforce Manager 1)

> *"I think there is a need for physiotherapists in occupational health departments to perform some sort of analysis within the organisation at an early stage to help identify actual performance issues and where processes need to be developed."* (Hospital B, Case 2, Workforce Manager 2)

Linking staff needs to the organisation

Workforce managers perceived there was a breakdown of communication between the organisation and employees. This was in spite of the fact that workforce managers felt that they had made progress towards creating links between the two. Workforce managers recognised that occupational health physiotherapists played a role in linking the needs of staff and the organisation:

> *"Creating links between our staff and the organisation is crucial to manage staff-related problems. We [workforce managers] have done lots of work to make staff feel more supported, but there has always been this breakdown in communication. I feel they [staff] sometimes think we are the enemy trying to make their lives difficult. The [occupational health] physio [therapist] spends a lot of time with staff, compared to the [occupational health] doctor or nurse, and that puts them in a prime position to understand and get to know the staff member much more intimately. That's [That is] why I think they [occupational health physiotherapists] can appropriately and efficiently link staff problems with the resources in the organisation."* (Hospital A, Case 1, Workforce Manager 1)

> *"I suppose physios [therapists] could help facilitate feedback to the organisation. It's [It is] good to have a system in place so that written feedback is made to the organisation. But I do think physios [therapists] are good at achieving better continuity of care, and driving their ideas back to*

the organisation. I suppose this helps initiate change, which is quite hard in the NHS." (Hospital B, Case 2, Workforce Manager 2)

Promotion of occupational health physiotherapy within the organisation

Participants felt that occupational health physiotherapists had a responsibility to promote their services and liaise with different stakeholders in the organisation:

> *"I feel it is important for the occupational health physiotherapist to establish and maintain an effective rapport with decision makers in the organisation. If they don't [do not] do it, then nobody else will."* (Hospital A, Case 1, Workforce Manager 1)

> *"I guess it would be up to the physio [therapist] to say what they can do and promote it to everyone."* (Hospital B, Case 2, Workforce Manager 2)

5.2.2 Theme 2: Impartial approach

The two sub-themes under this theme are: (1) sympathetic and impartial approach; and (2) client education and communication.

Sympathetic and impartial approach

Participants characterised the role of occupational health physiotherapists as being sympathetic and impartial to their problems by reducing their anxieties and fears of attending an occupational health department:

> *"One of the scary things about attending [an] occupational health [department] is that we know we are going to be told off for missing work. But the main advantage with [occupational health] physios [therapists] is that they have a deeper understanding of your problem and can provide you with more positive information about how you are getting along without taking sides."* (Hospital A, Case 1, Client 3)

> *"I see [occupational health] physiotherapists as those who should give you a boost in terms of how you are feeling, and maybe reassure you that your work situation is not as bad as your manager makes it out to be or makes you feel guilty for being off work."* (Hospital A, Case 1, Client 4)

> *"I felt brushed aside when I went to [the] occupational health [department], so we need someone who can make you feel welcome and not take the manager's side only. The [occupational health] physiotherapist is generally good at listening to you and giving you advice and she is quite good in making you feel important and not judging you for taking a couple of days off sick."* (Hospital A, Case 1, Client 5)

One client commented that occupational health physiotherapists would potentially be more suited to help her return to work because of their caring nature:

> *"I've [I have] been suffering with this leg pain for so long. There should be someone who can give you peace of mind and relieve this pain, without annoying you and making it look like you are faking the pain just to be off work. The physiotherapist could probably help me cope with all this pain because they understand pain, more than the [occupational health] nurses. They will probably put less stress on me, because they understand what I'm [I am] going through, and it would make my recovery easier."* (Hospital B, Case 2, Client 1)

The impact of being sympathetic was best described by a client who stated that occupational health physiotherapists have a role in occupational health departments not only because of their clinical knowledge but also because of their reassuring nature:

> *"If I had an acute injury, it would be of immense help if someone was there to relax and reassure me so that I did not feel tense about the whole situation. I don't [do not] think I will be looking for someone to explain the acute injury management guideline to me, as I said, I would want some who can make me feel less tense. My sense is that by having physiotherapists present in occupational health [departments], they are better at providing a reassuring and calming atmosphere because my brother had a stroke and I saw how they were able to help him when he was crying all the time. This is what I would be looking for if ever I was in a similar situation."* (Hospital B, Case 2, Client 3)

Client education and communication

Clients felt that occupational health physiotherapists should provide them with detailed information about their condition and the available treatment options and not make decisions for them:

> *"The [occupational health] physiotherapist provided me with so much information about my knee pain, and this helped me feel much better. I wish the [occupational health] nurse who I called would have given me this information and reassurance earlier."* (Hospital A, Case 1, Client 2)

> *"[Occupational health] Physiotherapists advise and guide you on the different treatments you can have for your injuries. I chose acupuncture because I heard many nice things about it. My colleague had it [acupuncture] on her back and she recovered so quickly. It's [It is] nice for someone to tell you all these things, you know, about what is available out there for you to choose and not make the decisions for you."* (Hospital A, Case 1, Client 4)

One client commented on the fact that it was not only the quality and ability of occupational health physiotherapists to explain and educate them on their condition, but their ability to

also educate and communicate with their managers and other members of the occupational health team:

> *"The [occupational health] physio [therapist] can ask you a lot of questions, but they are also good at giving you answers to the ones you ask [laughter]. But I guess they need this information to make up their minds about what is wrong with you, and in my case, they were able to tell the [occupational health] doctor about my condition and then explain to my manager how long my recovery would take."* (Hospital A, Case 1, Client 5)

5.3 Discussion:

Perceptions of stakeholders of the characterisations of the role of occupational health physiotherapy: A discussion in relation to the ACPOHE (2012a) Framework, literature and practice

The findings support the previous literature in that occupational health physiotherapists were viewed as agents to clients (Addley *et al* 2010; Hoenich, 1997; Phillips *et al* 2012; Pizzari and Davidson, 2013), however the characterisations of different stakeholders moved beyond the literature by introducing new components to the role of occupational health physiotherapy. These include being an agent to the organisation and having an impartial approach. The ACPOHE (2012a) Framework does not mention the organisational component of the role of occupational health physiotherapists and the approach that needs to be adopted.

Participants viewed the occupational health department as a complex working environment that is influenced not only by clinical care, but by demanding occupational health challenges and organisational changes. In order to address the challenges of working in an occupational health department, participants felt that occupational health physiotherapists should be able to balance their clinical role while meeting organisational needs and be able to deal with the presenting occupational health challenges, which in turn would enhance the influence of occupational health physiotherapists on decision makers.

A vital link between occupational health physiotherapy and the organisation is the role of organisational analysis and development. Participants viewed the role of occupational health physiotherapists as analysing organisational issues and helping facilitate new ideas and solutions. Many participants, in particular workforce managers, did not feel that they had links to the occupational health service. They were frustrated by the significant differences in information provided by occupational health doctors and nurses as well with their own workload. Conversely, workforce managers felt that occupational health physiotherapists had an important role in maintaining professional relationships within the organisation because they were perceived as a professional group that was able to bridge any differences in opinions.

Participants also viewed the role of occupational health physiotherapists as having a responsibility to promote occupational health physiotherapy within the organisation and being able to link staff needs with those of the organisation. This is an important finding because it depicts occupational health physiotherapists as being able to address the needs of the client directly with senior managers with minimal or no involvement of the occupational health doctors or nurses. The latter is a significant finding because the ACPOHE (2012a) Framework provides no indication that occupational health physiotherapists can escalate the needs of clients directly to senior managers, and previous studies have portrayed a limited role of occupational health physiotherapy as an assessment and treatment service for musculoskeletal conditions (Addley *et al* 2010; Hoenich, 1997; Pizzari and Davidson, 2013; Phillips *et al* 2012).

Participants also characterised the role of occupational health physiotherapists as providing an impartial approach. This characterisation means that the occupational health physiotherapist should not be seen to be favouring the side or opinion of the employer more than the employee and vice-versa. This differs from an outpatient physiotherapist role, where there is bias towards being patient-centred with the intended purpose of preserving the

quality of the patient-therapist relationship (Beattie and Nelson, 2008). Although I recognise that participants viewed the role of occupational health physiotherapists as having an impartial duty to both employer and employee, this is a situation which can lead to problems because occupational health physiotherapists also provide treatment. In the context of this project, the occupational health physiotherapist was employed by the NHS hospital (Hospital A, Case 1) and it is important to emphasise that the occupational health physiotherapist should adopt impartiality in her advisory responsibilities when addressing the concerns of employees as well as those of the employer, yet she may need to consider putting first those employees that she provide treatment to because she has an ethical duty to do so (HCPC, 2013).

Murphy (1995) argued that successful integration of the occupational health doctor's impartial role required them to consider both those interventions which meet the organisation's goals of profitability and competitiveness and the employee goals of job satisfaction, mental and physical health, and this is similar to what is reported by the RCN for occupational health nurses (RCN, 2011). In the context of the occupational health physiotherapy role, there needs to be an expanded discussion firstly with the professional and advocacy bodies, such as the CSP and WCPT, in order to find ways to reduce the potential conflict that may be experienced by occupational health physiotherapists required to take an impartial approach in their work, especially those employed directly by a multidisciplinary occupational health department, as they attempt to implement this role component. These ongoing discussions must be expanded to include multidisciplinary interactions and communications with different stakeholders, like advocacy and professional bodies, such as the GMC and Nursing and Midwifery Council (NMC), towards supporting occupational health physiotherapists in understanding and ensuring the impartial nature of their role.

In legislative terms, the HCPC does not require physiotherapists specialising in occupational health to be placed on an additional or specialist part of the register. The HCPC has not indicated the approach the occupational health physiotherapist must adopt, but instead provides guidance for a generic approach that all physiotherapists must adhere to. According to this HCPC guidance, all physiotherapists, regardless of specialisation, must be able to demonstrate effective and appropriate verbal and non-verbal skills in communicating information, advice, instruction and professional opinions to service users, colleagues and others (HCPC, 2013). This is contrary to the GMC guidance where occupational health doctors must adopt the role of an independent adviser, prepared to communicate impartial information to managers and workers (GMC, 2017), and similarly, according to the NMC, the role of the occupational health nurse is not primarily one of client advocacy, but of impartial adviser to both the employer and employee (NMC, 2017). In addition, occupational health doctors must be placed on the specialist part of the GMC register and occupational health nurses on the third part of the NMC register upon completion of their specialist occupational health training (GMC, 2017; NMC, 2017).

5.4 Expectations of stakeholders of the role of occupational health physiotherapy

5.4.1 Theme 3: Direct access care

The two sub-themes under this theme are: (1) rapid access intervention; and (2) dealing with occupational health challenges.

Rapid access intervention

Participants recognised that early contact with occupational health physiotherapists could yield benefits. They expected the role of occupational health physiotherapists to evolve and the fact the physiotherapists were being considered as part of the structure of occupational health departments was a positive sign of integration:

> *"The problem we have is getting the input of the physio [therapist] right from the beginning. It is important to have the physios [therapists] input so that the clients can get the right treatment quickly which can help them*

> *recover much faster. So I think it is more important to begin to get the early involvement of physios [therapists] into occupational health departments, especially given the amount of injuries we see."* (Hospital B, Case 2, Occupational Health Nurse 2)

> *"I would like to have physios [therapists] in our [occupational health] department, especially with all the physical injuries coming in. It would be really nice if we could have access to physios [therapists] sooner."* (Hospital B, Case 2, Occupational Health Nurse 3)

> *"The main issue is a conflict with time between managing clients that are off sick and those that are at work and have simple problems. The fact that we have a [occupational health] physio [therapist] on-site helps us manage cases much faster, especially those that come in with acute injuries."* (Hospital A, Case 1, Occupational Health Nurse 2)

Dealing with occupational health challenges

Participants agreed that occupational health departments deal with many challenges, and that occupational health physiotherapists had a crucial role in helping to alleviate some of these challenges, such as the long waiting times and limited departmental resources:

> *"One of the crucial issues in occupational health is the waiting times, especially with all the injuries coming through. Some cases are complex and urgent and need to be seen quickly, and the nurses are so busy with other things on their list, they don't [do not] always have the time to deal with all of this. I think this is where the [occupational health] physiotherapist comes in … helping to reduce the wait to be seen."* (Hospital A, Case 1, Workforce Manager 2)

Another challenge was the lack of specialised staff dealing with certain cases and the multiple problems presenting to occupational health departments:

> *"… especially for the acute musculoskeletal cases, I don't [do not] think the nurses and even the doctors are skilled enough to deal with some of these. Here is where the [occupational health] physiotherapist can help with early management to resolve these injuries."* (Hospital A, Case 1, Workforce Manager 2)

> *"There are too many problems coming into occupational health departments, so it is probably better to have a multidisciplinary team to deal with all the cases, so that the right clinician deals with the right case at the right time."* (Hospital B, Case 2, Workforce Manager 2)

Workforce managers were also concerned about the lack of connection between traditional occupational health clinicians and clients:

> *"A common concern we hear from staff is that they don't [do not] have any ongoing care. After they have seen the [occupational health] nurse or doctor and signed fit for work, they are left to their own devices to cope in*

the workplace. [Occupational health] Physios [therapists] play an important part in providing that ongoing support, which is necessary for clients to make that successful transition back to work. I think if we didn't [did not] have a [occupational health] physio [therapist] in-house, many of our staff would be relapsing into sickness absence." (Hospital A, Case 1, Workforce manager 1)

"For some staff, they are discharged with limited planning. Having a physiotherapist might help support staff when they need it. I don't [do not] think that [occupational health] nurses and doctors have extensive follow-up appointments for ongoing support. But I do think ongoing support is crucial for the occupational health advice to be effective, especially for our older staff." (Hospital B, Case 2, Workforce Manager 2)

5.4.2 Theme 4: Expertise and evidence-based

The four sub-themes under this theme are: (1) advanced knowledge and clinical reasoning; (2) expert opinion; (3) evidence-based practice; and (4) providing an additional perspective.

Advanced knowledge and clinical reasoning

There was an expectation that occupational health physiotherapists would provide high levels of knowledge and clinical reasoning in complex cases:

"Occupational health physiotherapists provide high-quality and systematic assessments and interventions. We call on them to problem solve complex cases, especially when we cannot sometimes make a decision ourselves." (Hospital A, Case 1, Occupational Health Doctor)

"We don't [do not] expect the occupational health physiotherapist to provide a generalist role. We have an occupational health physio [therapist] in the department because they have very specific knowledge, so you get to tap into that knowledge to get a better idea of how injured the employee really is." (Hospital A, Case 1, Occupational Health Nurse 5)

"I have worked with physiotherapists before … it is important to have them in the [occupational health] department because they are so knowledgeable about different types of injuries, which can almost always inform the decisions we make. They tend to have a very reasoned approach about timescales of recovery which definitely helps with the cases we see." (Hospital B, Case 2, Occupational Health Nurse 1)

Expert opinion

Participants expected occupational health physiotherapists to provide more specialised information compared to other occupational health clinicians and outpatient physiotherapists:

> *"Sometimes, as a nurse, we are unable to provide the level of detail the employer wants. We tend to give only general advice, like for back pain we say keep active and don't [do not] do any heavy manual handling work, then the employer says that the staff member is already doing this and they want more specific advice. I think there is a need for having physios [therapists] in occupational health departments who are better placed to deal with these types of cases."* (Hospital B, Case 2, Occupational Health Nurse 1)

> *"They [occupational health physiotherapists] are able to evaluate in such detail the effectiveness of interventions, so they are best placed to provide an accurate picture and opinion about how to reduce work-related injuries."* (Hospital A, Case 1, Occupational Health Nurse 7)

Evidence-based practice

Participants expected occupational health physiotherapists to have a greater potential of implementing evidence-based practice. They felt that, in general, physiotherapists were better able to refine and implement evidence-based protocols compared to traditional members of the occupational health team:

> *"We have several guidelines, such as the ones for occupational asthma and so on, many of which are easily available and published on NHS websites, but many of us put up barriers to implementing them. I think with physios [therapists], they are often better at simplifying the information and the general consensus is that they tend to use it more often."* (Hospital A, Case 1, Occupational Health Doctor)

> *"The [occupational health] physio [therapist] tends to follow the protocols, so they don't [do not] miss anything. I guess they are keen for everyone to be treated according to a standard."* (Hospital A, Case 1, Occupational Health Nurse 6)

Occupational health clinicians viewed their workload as being too heavy and unpredictable to follow guidelines strictly. They felt that physiotherapists had more time to offer dedicated treatment according to intervention protocols:

> *"A lot of the time, clients prefer to see the physio [therapist] because they know what to say and do at week 1 of the injury and then week 2 and then a few weeks later. If I see the same client, they don't [do not] get the same type of advice. There are probably hospital protocols for certain types of injuries, but we doctors tend to give the same advice … we are probably not as consistent in our advice as physiotherapists."* (Hospital B, Case 2, Occupational Health Doctor)

> *"A lot of the time, I would think this is your problem, write my recommendations and that's [that is] it. I know I could probably give more advice, especially regarding acute injuries, because we don't [do not] want them turning into chronic problems and the person going off on long-term*

sick leave. I think a physio [therapist] would be able to do so much more. They can see the client and offer more detailed and specific advice, than I can, and hopefully the client would get better sooner." (Hospital B, Case 2, Occupational Health Nurse 7)

Promoting evidence-based practice was seen as paramount for occupational health physiotherapists to demonstrate the value of their role:

"We need to continually show that we work with an evidenced-based framework, that we are actively developing our skills and that we are relevant to this [occupational health] department. I also think evidence-based practice is important for our clients too … they can be assured that they are getting the latest and safest knowledge available at the time." (Hospital A, Case 1, Occupational Health Physiotherapist)

Occupational health clinicians viewed occupational health physiotherapists as not only improving the quality of care provided to clients, but that they also provided an evidence-based influence on the organisation:

"The [occupational health] physio [therapist] does not only provide care to our clients, they also deal with the issues of the organisation. I think it's [it is] very important that they get involved at this level because they have all this knowledge about anatomy and physiology and they can justify why we say what we say … if that makes sense." (Hospital A, Case 1, Occupational Health Nurse 1)

"I suppose that physios [therapists] would be more involved than we are in assessing because they understand things like human movement. We would probably just give clients a back booklet, whereas the physio [therapist] would probably know what the latest information is and how to translate this into organisational requirements. We sort of get the ball rolling … they [physiotherapists] are the ones with all the fancy interventions." (Hospital B, Case 2, Occupational Health Nurse 2)

Providing an additional perspective

Participants anticipated that occupational health physiotherapists would provide an additional perspective in certain occupational health cases:

"It is better to use [occupational health] physios [therapists] because they can offer more expertise, which I find compliments the [occupational health] doctor's advice." (Hospital A, Case 1, Client 4)

"I think the more specialists there are on the [occupational health] team to assist staff with all sorts of conditions, the better, [and] this will ensure that staff get better care, so I think physiotherapists can help make care better for us." (Hospital B, Case 2, Client 1)

> *"I guess it always helps to have another set of eyes looking at the same problem, [and] offering a different set of skills."* (Hospital B, Case 2, Client 4)

The sub-category of providing an additional perspective was also viewed as a benefit if occupational health physiotherapists worked in conjunction with traditional occupational health clinicians:

> *"[Occupational health] physiotherapists would need to liaise directly with [occupational health] doctors and nurses if they want to offer a different opinion so that any disagreement can be resolved and the best care is given to staff."* (Hospital A, Case 1, Client 3)

> *"There is no doubt in my mind that [occupational health] physiotherapists have unique skills, so having them around makes the occupational health service more complete because they can supply more input into the cases, which the [occupational health] doctors might not have thought about."* (Hospital A, Case 1, Client 4)

5.4.3 Theme 5: Role identity

The three sub-themes under this theme are: (1) managing role conflict; (2) personal qualities and attributes; and (3) role substitution:

Managing role conflicts

A number of occupational health clinicians viewed the advancement of physiotherapy's role in occupational health departments as a potential threat. Both occupational doctors and nurses were concerned that an advancing physiotherapy role could make it more difficult for them to justify their own positions:

> *"There seems to be no structure these days about who does what … our roles seems to be getting blurred all the time, first with nurse-led services and now with the addition of physiotherapists. It's [It is] very difficult to say I'm [I am] a consultant and I do this because the physios [therapists] and the nurses do it as well."* (Hospital B, Case 2, Occupational Health Doctor)

> *"I think if doctors do their bit, nurses do their bit and similarly physios [therapists] do their bit, and we all work closely together, then it really works well. I think it's [it is] only a problem when some professions try to go beyond what they are trained to do."* (Hospital B, Case 2, Occupational Health Nurse 1)

> *"I think if we get physios [therapists] in this [occupational health] department who try to push their roles, it will not necessarily lead to improved services for staff. We have to be careful about what structure we*

> *want because we don't [do not] want to have a situation where there are too many people pushing their profession for their own reasons. This can only be detrimental to the [occupational health] department."* (Hospital B, Case 2, Occupational Health Nurse 3)

The complexity of role conflict is further exacerbated by the potential conflict between physiotherapy and traditional members of the occupational health team. One occupational health clinician felt that occupational health physiotherapists would only shift the service sideways without actually addressing the real problems of the service:

> *"Although I support healthy peer competition, I am beginning to see a sideways shift of what we know as a traditional occupational health department. Occupational health departments tend to hire so few [occupational health] consultants, that for the [occupational health] department to get around their busy workloads, you know, they are happy to hire [occupational health] physiotherapists to do some of the work."* (Hospital B, Case 2, Occupational Health Doctor)

Another occupational health clinician felt that occupational health departments were already established where the core services revolved around the specialised doctors and nurses:

> *"All our clinicians here are trained to do what is needed. We never had a physio [therapist] in our department before, but I guess we can get really busy and having extra help like a physio [therapist] might help."* (Hospital B, Case 2, Occupational Health Nurse 1)

However, occupational health physiotherapy's potential role conflict with traditional occupational health clinicians appeared to originate from their belief that they are professionally the best to deal with some of the conditions presenting to the service:

> *"There is generally a better acceptance of an occupational health physiotherapist to manage, for example, a shoulder rotator cuff injury or disc prolapse, because we have extensive knowledge in this area. From my experience, staff coming into the department with these types of conditions, prefer to be seen by the physiotherapist. The feedback we get from managers in the organisation shows us that they tend to accept our recommendations, and even the [occupational health] nurses and consultants tend to refer these cases to us waiting for our opinion. So I think this probably justifies the important role we play and that we are doing the right thing."* (Hospital A, Case 1, Occupational Health Physiotherapist)

Personal qualities and attributes

There were certain professional and personal qualities that occupational health clinicians expected an occupational health physiotherapist to possess. These qualities were even part of the recruitment process:

> *"When we were recruiting for the [occupational health physiotherapy] post, we were looking for someone that just didn't [did not] have a Masters [degree] on their CV [curriculum vitae], but we also looked for someone that would fit in the team. While it is important to get someone with a range of skills, I think it is also necessary to get someone that has the attributes to cope with the demands of the job and be able to deal with difficult managers."* (Hospital A, Case 1, Occupational Health Nurse 5)

Although choosing the best candidate for a role is logical, the expectation of the occupational health physiotherapy role was that it would suit someone who was aware that their role was constantly under scrutiny by other professions on the team and that they had to constantly clarify their position in the department:

> *"As an occupational health physiotherapist I have to constantly clarify my position and show the value and attributes I bring to the post. We [occupational health physiotherapists] are not traditional members of the [occupational health] team, and so the other professions can get a bit confused about our special traits. Like, if you are in an outpatient physiotherapy department, your role as a musculoskeletal physiotherapist is well understood, but in occupational health, you have to constantly prove your professional worth and your strong interpersonal qualities because this environment is fairly new to physiotherapists."* (Hospital A, Case 1, Occupational Health Physiotherapist)

Occupational health clinicians expected an occupational health physiotherapist to be able to challenge medical opinions and those of the referring manager, especially when it was contradictory to their own professional recommendations:

> *"I think it would be good to have physios [therapists] because they would certainly be able to challenge the doctors and managers, and tell them when they are wrong. Physios [therapists] have strong personalities which are needed when you work on an occupational health team."* (Hospital B, Case 2, Occupational Health Nurse 2)

While having an occupational health physiotherapist with strong clinical skills was important, there was the belief among occupational health clinicians that positivity and personal strength was needed to defend their clinical decisions:

> *"It's [It is] more than just having a person with the right skills, although that is very important, because at the end of the day, it all comes down to being able to stay positive and strong in this working environment, like when you know you are right, but you have everyone constantly trying to tell you to change your opinions and reports. It can wear you down, especially if you are not used to this. I think physios [therapists] need to understand this if they want to work in occupational health, it's [it is] not just about treating clients in a clinic."* (Hospital B, Case 2, Occupational Health Nurse 3)

Role substitution

Clients thought that occupational health physiotherapists should sometimes substitute for the role of traditional occupational health clinicians as they acknowledged that they had similar skills and knowledge as occupational health doctors and nurses:

> *"I was having trouble with my hip [and] I didn't [did not] need to see the [occupational health] doctor because the [occupational health] physio [therapist] assessed me and then told my manager [that] I could come back to work and what I should avoid. So I really didn't [did not] need to see the [occupational health] doctor."* (Hospital A, Case 1, Client 2)

> *"I see no reason why a physiotherapist cannot reassure staff and tell them how to deal with their injuries. We [clients] don't [do not] need to wait for the [occupational health] nurse or doctor."* (Hospital B, Case 2, Client 1)

One client commented that an occupational health physiotherapist could substitute for the role of traditional occupational health clinicians because,

> *"… you were seen sooner and this helped me be less anxious than waiting for an appointment for the [occupational health] doctor."* (Hospital A, Case 1, Client 3)

while another client was more explicit about why an occupational health physiotherapist could substitute for traditional occupational health clinicians:

> *"The [occupational health] physiotherapist advises us about wrist supports and back braces which makes our recovery a little better. We [clients] don't [do not] get this from the [occupational health] nurses, [we] only [get] simple advice."* (Hospital A, Case 1, Client 4)

The theme of occupational health physiotherapy role substitution went beyond traditional occupational health clinicians, and was best described by one client who felt that occupational health physiotherapists could even act in for a staff counsellor:

> *"When I had a back complaint and sciatica the [occupational health] physiotherapist helped me a lot. I was so emotional about my acute pain and how I was ever going to come back to work. I could not cope with the situation [and] I was told by one of the [occupational health] nurses to see the counsellor, but after a few sessions I didn't [did not] feel any benefit. I was feeling so tense, but the [occupational health] physiotherapist talked to me about my condition and what to expect in terms of recovery which made me feel less stressed and this helped me relax."* (Hospital A, Case 1, Client 5)

5.5 Discussion

Expectations of stakeholders of the role of occupational health physiotherapy: A discussion in relation to the ACPOHE (2012a) Framework, literature and practice

The findings support the previous literature in that occupational health physiotherapists were viewed as evidence-based health professionals (Addley *et al* 2010; Hoenich, 1997; Phillips *et al* 2012; Pizzari and Davidson, 2013), however, the expectations of different stakeholders have moved beyond the literature by introducing new components to the role of occupational health physiotherapy. These include providing direct access care, expert advice and having a role identity. The ACPOHE (2012a) Framework does not mention the route of access to occupational health physiotherapy care or the specific identity of occupational health physiotherapists in an occupational health department and in relation to the organisation. With regards to the nature of occupational health physiotherapy advice, the ACPOHE (2012a) Framework reported that an occupational health physiotherapist should have the knowledge and understanding of occupational health, however, this does not emphasise the expert knowledge and organisational understanding required of occupational health physiotherapists within the remit of their job role. This is in contrast to both occupational health doctors and nurses who are recognised as specialists following the completion of their occupational health training (GMC, 2017; NMC, 2017).

Participants reported numerous components that could hinder the role of occupational health physiotherapy, such as the long waiting times, limited departmental resources and role conflict between traditional occupational health clinicians and physiotherapists. In particular, clients felt that long waiting times to obtain an initial appointment to see an occupational health physiotherapist could result in occupational health physiotherapy being seen as inefficient and the inconvenience of waiting for a long time could negatively impact their symptoms and ability to work. In addition, occupational health physiotherapists could also be perceived as providing a poor quality service because rapid access to occupational health

physiotherapy services is a national occupational health service quality requirement (SEQOHS, 2013), and occupational health physiotherapists must be mindful that clients expect rapid access to their services so that they do not have to wait in a long queue for access to primary care physiotherapy.

Participants expected occupational health physiotherapists to provide an additional perspective within an occupational health department. This role is important because an additional perspective may help filter the referrals coming into the occupational health service by identifying those that are at high risk; those with complex injuries and may have difficulty performing their job; and those that are potentially at risk of sustaining injuries. Arguably, one of the most important contributions that occupational health physiotherapists can make to an occupational health department is providing appropriate advice following a referral in order to avoid inappropriate use of occupational health doctors and nurses' time, in particular occupational health doctors, to focus on complex medical cases.

Clients expected to have direct access (sometimes known as 'first contact') to the occupational health physiotherapist without the need to be referred by the occupational health doctor or nurse. In the context of this project, both cases were relatively similar in their staffing structure and departmental objectives, however one fundamental difference was that Hospital A (Case 1) provided an in-house occupational health physiotherapy service. At Hospital A (Case 1) the occupational health physiotherapist was part of the occupational health department and, therefore, more likely provides direct access care in line with occupational health requirements compared to Hospital B (Case 2) where the physiotherapist must provide their service in agreement with the primary care agenda that largely does not support direct access care because of financial constraints (CSP, 2017).

In addition, being part of the occupational health department will enable the occupational health physiotherapist to address any role conflicts that may arise with the occupational

health team more directly. Being situated within the occupational health department allows the occupational health physiotherapist to establish their role identity, be constantly visible and easier to access. In the context of this project, role identity is conceptualised as the character people play (that is, the occupational health physiotherapist) when holding specific social positions in groups (that is, the occupational health team) (Burke and Stets, 2009). Furthermore, according to Burke and Stets (2009) it is relational, since people interact with each other via their own role identities. The occupational health physiotherapist (Hospital A, Case 1) who is part of the occupational health team, has the advantage of interacting more closely with members of the traditional occupational health team to make certain that there is a collective agreement on the role of occupational health physiotherapy in order to conceptualise their role identity within the provision of the occupational health service. In contrast, the outpatient physiotherapist (Hospital B, Case 2) who deals with referrals from the occupational health team, is a member of the physiotherapy department and is guided predominantly by the primary care agenda. This situation could lead to even more role conflicts between the outpatient physiotherapist and members of the occupational health team if the outpatient physiotherapist prioritises the primary care agenda over the needs of the occupational health service.

The increased visibility and easier access to the occupational health physiotherapist (Hospital A, Case 1) can potentially contribute to improved professional relations with the occupational health team and develop mutual understanding about what occupational health physiotherapy can offer occupational health departments, the boundaries of professional practice and even create opportunities for traditional occupational health clinicians to engage more willingly with occupational health physiotherapists, and in so doing, reduce any role conflicts that may arise.

At Hospital B (Case 2) there was no dedicated occupational health physiotherapist, and, therefore, the access to the outpatient physiotherapist was less visible. While participants

from Hospital B (Case 2) had a general understanding of the role of occupational health physiotherapy, there was much more fragmentation in the provision of physiotherapy to the occupational health department compared to Hospital A (Case 1). While clients at Hospital A (Case 1) felt that occupational health physiotherapists improved their health and assisted them in recovering quicker, the clients from Hospital B (Case 2) believed that the lack of a dedicated occupational health physiotherapist meant that their diagnosis and subsequent treatment was often delayed, and the implication was that this affected their ability to perform their jobs effectively. This perspective is supported by Pizzari and Davidson (2013), who reported that there was a significant difference ($p=0.00$) in health outcomes if there were delays in accessing physiotherapy, with the results favouring the occupational health physiotherapy group that received timely intervention for returning to usual activities.

Furthermore, at Hospital B (Case 2) referrals from occupational health for physiotherapy were made to the outpatient physiotherapy department. The outpatient physiotherapy department booked clients directly into their routine clinics and there was no formal relationship between the outpatient physiotherapist and the occupational health department. This crucial detail made it challenging for outpatient physiotherapists to adhere to a holistic approach, as it is limited by its location outside the occupational health department, and to forge strong relationships with members of the occupational health team. In contrast, Hospital A (Case 1) had the occupational health physiotherapist firmly situated in the occupational health department, and this provides stakeholders with reassurance that there was a dedicated physiotherapist to support staff health and wellbeing.

Participants expected occupational health physiotherapists to have an advanced level of knowledge and clinical reasoning, beyond that of an outpatient physiotherapist, and this was seen as an essential component of occupational health physiotherapy practice. This advanced level of knowledge and reasoning was constantly expected among the different stakeholders because occupational health physiotherapists were expected to provide an

expert opinion on both clinical and organisational issues. This component of the role was of particular relevance to the occupational health physiotherapist in Hospital A (Case 1) because she had to demonstrate her value within the occupational health team and that she was making a difference within the occupational health department. One of the most effective means of reducing resistance to the occupational health physiotherapy role and showing that it can make a difference, according to Grimmer *et al* (2000), is demonstrating clinical effectiveness. Many of the occupational health clinicians interviewed accepted they had limited knowledge with regards to sporting, soft-tissue and musculoskeletal injuries. It could be argued, therefore, that occupational health physiotherapists could add value to the occupational health department by advancing the knowledge and reasoning in these clinical areas.

It is also vital for occupational health physiotherapists to demonstrate an advance level of clinical knowledge and reasoning because this may assist with fostering trust, respect and acceptance in occupational health departments. It may also allow occupational health physiotherapists to take on unanticipated roles, such as role substitutions, whereby they could confidently undertake some of the work traditionally performed by occupational health doctors and nurses. However, physiotherapists must ensure that they receive adequate training to carry out any new components in their role so that they do not risk practising outside the scope of their knowledge (CSP, 2005).

There were some occupational health clinicians, however, that were concerned about the advanced clinical role that occupational health physiotherapists were performing, and how it threatened their own roles. Reed *et al* (2009) did warn that when dealing with different stakeholders, conflicting and diverse agendas would come up and this had to be addressed. The criticism, however, of the advancing role of occupational health physiotherapists tended to emanate more from Hospital B (Case 2) where there was much less of a presence of the physiotherapist. Occupational health clinicians at Hospital A (Case 1) who had more regular

contact with the occupational health physiotherapist acknowledged that the organisation is dynamic and constantly changing and that the contribution of occupational health physiotherapy is part of the solution to assist with the burden of service delivery. This is supported by the literature which recognises that positive outcomes are at risk if departmental staff do not work together to reduce clinical errors (Kirk, 2012). Furthermore, according to Atwal and Caldwell (2002) understanding the roles of each other is essential to effectively collaborate on clinical management and avoid duplication of professional roles, waste resources and miss clinical signs in the interest of protecting clinical turf.

5.6 Preconceptions of stakeholders of the contributions of occupational health physiotherapy to occupational health services

5.6.1 Theme 6: Specific vocational rehabilitation

The four sub-themes under this theme are: (1) functional capacity evaluations; (2) job demand analysis; (3) work-specific rehabilitation; and (4) support for injuries at work.

Functional capacity evaluations

Participants felt that the contribution of occupational health physiotherapists went beyond initial assessment and treatment, but incorporated specific functional evaluations:

> *"Sometimes, we need information about a client's fitness for work even before they start their job. This is where [occupational health] physios [therapists] play a huge part … they can conduct pre-evaluation functional assessments, and give us a detailed report about the capabilities of the client. This is very useful for helping us make our decisions."* (Hospital A, Case 1, Occupational Health Doctor)

There was also a sense of respect for the contribution and ability of occupational health physiotherapists in providing functional capacity evaluations:

> *"Physios [therapists] are much better equipped than doctors to compare the physical abilities of clients to functional demands of the job. Unless they [occupational health doctors] have a special interest in functional testing, I don't [do not] think they will go out of their way to evaluate this. Ideally I would prefer the physio [therapist] to conduct them, that's [that is] just my opinion."* (Hospital B, Case 2, Occupational Health Nurse 4)

Occupational health physiotherapists were seen to be capable of developing and choosing appropriate tools that contributed to specific functional tests:

> *"[Occupational health] Physios [therapists] have this ability to choose a wide range of functional battery tests based on targeted jobs, and they can also develop tools specific for vocational tasks."* (Hospital A, Case 1, Occupational Health Doctor)

Job demand analysis

Participants also claimed that occupational health physiotherapists supported job demand analysis:

> *"The [occupational health] physio [therapist] in our department also evaluates the demands of work and tasks … this is important because overall it helps promote wellbeing and fitness of clients."* (Hospital A, Case 1, Occupational Health Nurse 7)

> *"Physios [therapists] are valuable for identifying and quantifying risk factors associated with a particular job."* (Hospital B, Case 2, Occupational Health Nurse 2)

Occupational health physiotherapists were also perceived to contribute to work-related modifications for injured clients, as two participants stated:

> *"Following their [occupational health physiotherapy] assessments, they are also able to develop specific job-related adaptation strategies, and this is useful when the client has to return to work."* (Hospital A, Case 1, Occupational Health Doctor)

> *"The [occupational health] physio [therapist] works well with the engineers and maintenance guys to help recommend and modify equipment, which has a big impact on work performance outcomes."* (Hospital A, Case 1, Occupational Health Nurse 3)

and for the general workforce as commented on by another participant:

> *"… they [occupational health physiotherapists] have an important role in identifying the anthropometric and strength needs of the workforce and this comes in useful when analysing the job and making job-related modifications."* (Hospital A, Case 1, Occupational Health Nurse 3)

Work-specific rehabilitation

One of the most unique contributions that participants attributed to occupational health physiotherapists was having a work-specific focus in their rehabilitation approach:

> *"Occupational [health] physios [therapists] focus on developing conditioning programmes, in addition to their therapeutic exercises, which is a massive*

> *area for the [occupational health] service to provide. This specific type of practice provides clients with the endurance they need to do their jobs."* (Hospital A, Case 1, Occupational Health Nurse 5)

> *"… sometimes physios [therapists] working in occupational health departments can be seen as only doing musculoskeletal assessments, yet their workload is not just musculoskeletal, they must know a person's job tasks and develop a specific rehabilitation programme that can help them stay in their job. They [occupational health physiotherapists] have to initiate, together with the multidisciplinary team, a suitable work conditioning programme. So it's [it is] easy to see that their role is more than just strengthening muscles and loosening joints."* (Hospital A, Case 1, Occupational Health Nurse 3)

> *"I think it's [it is] better getting a physio [therapist] who can do work rehabilitation, which is maybe better that getting a physio [therapist] who can only do musculoskeletal work."* (Hospital B, Case 2, Occupational Health Nurse 3)

The contribution of occupational health physiotherapists to work-specific rehabilitation was perceived as embracing the demands of the occupational health department, and not working in isolation:

> *"If physios [therapists] want to work in occupational health, they should be able to do more than just assessments and integrate injury reduction and safety programmes in their work. They must be able to prove that they can cope and be versatile to work in the [occupational health] team and should not work by themselves in isolation …"* (Hospital B, Case 2, Occupational Health Nurse 2)

Most clients believed that occupational health physiotherapists had relevance in providing a specialised exercise programme that focused on functional aspects of their rehabilitation as opposed to general exercises being prescribed by an outpatient physiotherapist:

> *"I've [I have] been to outpatient physio [therapy] and had exercises taught to me before, but occupational health physio [therapy] helps you to return to work by getting all your body functions working again as best as they can work. The [occupational health] physiotherapist gives you specific exercises and activities to do, which you can even do while working so that you don't [do not] end up with further problems."* (Hospital A, Case 1, Client 5)

> *"The physio [therapist] in [the] occupational health [department] gives you specific exercises and management plans, not the general ones we usually get and the ones over the internet, and this helps with strengthening the muscles."* (Hospital A, Case 1, Client 3)

Another client felt that the functional exercises prescribed by occupational health physiotherapists contributed to recovery from symptoms:

> *"The [occupational health] physiotherapist gives you all these nice exercises, some of which I have not done or seen before, even in my yoga classes, that helps relieve my sore muscles and joints, and you are even told to continue with the exercises so that the pain does not return, especially the stretches which I find very helpful."* (Hospital A, Case 1, Client 4)

The recognition that occupational health physiotherapists made an impact on functional exercise programmes was explained by one client despite reporting that they did not have a clear idea of the role of physiotherapists:

> *"I don't [do not] really have much knowledge about what a physiotherapist does, but I think in occupational health [departments], the physiotherapist would give you specific exercises for a particular injury that can build you up for your job and general ones that you can do at home."* (Hospital B, Case 2, Client 4)

Support for injuries at work

Clients felt that occupational health physiotherapists assisted with their care when they sustained injuries at work:

> *"I think an important contribution of occupational [health] physiotherapists is the help they give to your care when you get injured at work. Sometimes, I feel like the managers just panic when a staff member is injured, and usually, they don't [do not] know what to do, so I think it's [it is] nice when you have an experienced [occupational health] physio [therapist] on-site that deals with these types of injuries at work."* (Hospital A, Case 1, Client 1)

> *"Physiotherapists in occupational health [departments] can see staff following an accident at work because they will have a better idea of the injury."* (Hospital B, Case 2, Client 3)

Some clients gave specific examples where occupational health physiotherapists could support them with specific injuries:

> *"The [occupational health] physiotherapist can treat broken bones, or help when your shoulder pops out of place. This is an area where [occupational health] physios [therapists] know what they are doing."* (Hospital A, Case 1, Client 2)

> *"For someone who has fallen and not broken any bones, then direct [occupational health] physio [therapy] can help."* (Hospital A, Case 1, Client 1)

> *"They can help staff recover from sore muscles and tendons, also I think they can help with strains and disabilities so the staff member is reassured that when they are injured, somebody is there to support them."* (Hospital B, Case 2, Client 3)

5.6.2 Theme 7: Health promotion and training

The three sub-themes under this theme are: (1) improving staff health; (2) job coaching; and (3) development of job descriptions:

Improving staff health

Participants viewed the role of occupational health physiotherapists as professionals that could enhance their health and assist them in recovering quicker so that they could perform their job tasks effectively:

> *"I'm [I am] glad there is a [occupational health] physio [therapist] in our hospital because she was able to help me recover from my health issues much quicker, and also the workplace adjustments recommended by her helped me do my job better."* (Hospital A, Case 1, Client 3)

Occupational health physiotherapists were also viewed as facilitators that ensured clients recuperated faster:

> *"When I told the [occupational health] physio [therapist] about my condition, I was given an immediate appointment, which I felt was so refreshing because I did not have to go through so many different channels. She also contacted my GP so that my investigations could be speeded up."* (Hospital A, Case 1, Client 4)

> *"I just called the [occupational health] physio [therapist] and I was given advice over the phone to reduce the swelling in my leg, and I was then fast-tracked to the urgent care centre, and all this has definitely helped speed up my recovery."* (Hospital A, Case 1, Client 2)

> *"If a physiotherapist can diagnose us properly, our health would be much better, and then we can have proper follow-up care to see how we are doing."* (Hospital B, Case 2, Client 1)

> *"Frankly, the sooner someone helps you, the sooner you can return to work, and if that means getting a physiotherapist on board, then I'm [I am] all for it."* (Hospital B, Case 2, Client 4)

Participants also regarded the role of occupational health physiotherapists as not only providing advice, but also escalating their problems back to their manager. Occupational health physiotherapists were seen as the connection between clients and their managers for improving staff health:

> *"The [occupational health] physiotherapist not only advises on rehabilitation, but she also tells managers what should be done to make the environment safe for us to work in. The [occupational health]*

> *physiotherapist understands how things work in this place, and can handle difficult managers. This has instilled confidence in how I view [occupational health] physiotherapy."* (Hospital A, Case 1, Client 4)

> *"A physiotherapist is someone who is specialised in injuries, but also has knowledge on how staff should be working and what jobs we should be doing and not doing. If having physiotherapists mean that this information goes to managers, then I feel more staff will be at work."* (Hospital B, Case 2, Client 4)

Another viable contribution by occupational health physiotherapists was supporting staff health promotion events:

> *"When we had our staff health promotion event, the [occupational health] physiotherapist contributed immensely to the event by organising many activities and health talks. I can see a clear role for them here."* (Hospital A, Case 1, Workforce Manager 2)

Job coaching

One workforce manager felt that occupational health physiotherapists coached staff members on how to carry out or adapt the tasks of their jobs:

> *"The [occupational health] physiotherapist provides our staff with on-the-job coaching, which helps staff members to learn new techniques to do the job or adapt the job to fit in with their disabilities."* (Hospital A, Case 1, Workforce Manager 2)

Development of job descriptions

An unexpected contribution of occupational health physiotherapists that was revealed was their involvement in developing job descriptions:

> *"The occupational [health] physiotherapist is best placed to assess functions of the individual, and I think it is important that they use this information to help managers develop job descriptions that are functionally based. This will help us understand what type of staff to hire so that we can get people who can do the job."* (Hospital A, Case 1, Workforce Manager 1)

5.7 Discussion

Preconceptions of stakeholders of the contributions of occupational health physiotherapy to occupational health services: A discussion in relation to the ACPOHE (2012a) Framework, literature and practice

The findings support the previous literature in that occupational health physiotherapists were seen as contributing to the health promotion agenda (Addley *et al* 2010; Hoenich, 1997; Phillips *et al* 2012; Pizzari and Davidson, 2013), however, the contributions reported by different stakeholders moved beyond the literature by introducing new components to the role of occupational health physiotherapy. These components include specific vocation rehabilitation and training. The ACPOHE (2012a) Framework requires an occupational health physiotherapist to have practice skills, however this is not explicit enough when it comes to the specific vocational rehabilitation skills that are required of occupational health physiotherapists. There is also no mention in the ACPOHE (2012a) Framework of the role of occupational health physiotherapists contributing to health training.

It is worth noting again that the physiotherapy profession is regulated in the UK by the HCPC and professional advocacy is provided by the CSP and the WCPT, of which the UK is a founding member. A successful occupational health physiotherapy role should, therefore, be able to make contributions to generic physiotherapy needs while being flexible enough to meet specific occupational health and organisational demands within the regulated scope of practice.

In terms of specific vocational rehabilitation, participants revealed distinct components of the role of occupational health physiotherapy beyond the literature and ACPOHE (2012a) Framework. These components include functional capacity evaluations, job demand analysis and work specific rehabilitation.

Functional capacity evaluations, while employed in some occupational health departments, are currently not standard practice for occupational health physiotherapists. Although occupational health physiotherapists evaluate an employee's functional ability using a number of clinical and non-clinical tools (Addley *et al* 2010; Hoenich, 1997; Phillips *et al* 2012; Pizzari and Davidson, 2013), the purpose of functional capacity evaluations is to provide standardised, objective and unbiased information for an employer or potential employer regarding the ability of an employee to undertake the demands of the job (Reesink *et al* 2007). There is evidence to suggest that not only do individual employees underestimate their actual physical capability (Asante *et al* 2007), but occupational health clinicians also misjudge the employee's performance (Brouwer *et al* 2005). Functional capacity evaluations, therefore, can help provide an unbiased assessment of an employee's physical capabilities and enhance the occupational health physiotherapist's recommendations for fitness for work and inform vocational rehabilitation programmes as well as contribute to the advice given by occupational health doctors and nurses.

The majority of occupational health physiotherapists and outpatient physiotherapists work within the clinical setting where an assessment and treatment programme is undertaken within a 30-60 minute timeframe. For functional capacity evaluations to become a standard adjunct in occupational health physiotherapy practice, then existing departmental requirements of time, cost and value must be considered. In this respect, the occupational health physiotherapist at Hospital A (Case 1) is part of the occupational health team and this close working relationship will help define her goals and future role, which may include negotiating an increase in the standardised assessment and treatment timeframe to accommodate for functional capacity evaluations. In contrast, the outpatient physiotherapist at Hospital B (Case 2) who is part of the physiotherapy department, provided only partial cover to the occupational health department while also working in other hospital wards and reporting back to the physiotherapy department daily. This may hinder the outpatient physiotherapist from undertaking functional capacity evaluations because their role is not

wholly concerned with the occupational health department, and consequently they may have difficulty negotiating with the physiotherapy department for an increase in the standardised assessment and treatment timeframes for the benefit of another department.

Participants also felt that occupational health physiotherapists had a role in undertaking job demand analysis. The main purpose for carrying out a job demand analysis is to accurately match the functional tests selected for the functional capacity evaluation with work-related activities and thereby improve the validity of functional testing (Pransky and Dempsey 2004). According to Kuijer *et al* (2006) another benefit of using a job demand analysis prior to undertaking a functional capacity evaluation is that it provides a minimal performance criterion to undertake the job rather than assuming a better performance in the functional testing is a better predictor of work participation. Kuijer *et al* (2006) further proposed that following a job demand analysis, if an employee's performance exceeds the minimum required to carry out the job, then the employee's capability is more likely to be sufficient to undertake it.

Interestingly, participants reported an unexpected contribution of the role of occupational health physiotherapists of developing job descriptions. While many employers create job descriptions, these are usually very generic and do not contain the specific information needed (for example, standing, bending/stooping, lifting, carrying, kneeling, gripping requirements) to meet the job duties. For an occupational health physiotherapist to contribute to the development of job descriptions there would need to be an evaluation of the performance of a healthy employee undertaking the same or very similar job in order to make recommendations during the job description development process.

Participants also were under the impression that occupational health physiotherapists should promote staff health and in this regard it is, therefore, pertinent that occupational health physiotherapists embed their role within the occupational health department and not work in

isolation. This will ensure that occupational health physiotherapists offer a more holistic approach of improving staff health and contribute to a bio-psychosocial model of care, which, according to Borrell-Carrió (2004) involves listening to the needs of the employee, framing the employee's injury in the context of their work and lifestyle and modifying treatment plans on an individual basis. Occupational health physiotherapists are in a unique position to offer care accordingly to the bio-psychosocial model because they have the flexibity to spend a longer time with clients, compared to outpatient physiotherapists, in order to be able to manage a variety of their health and vocational needs.

A new component of the role of occupational health physiotherapy was job coaching. One aspect of job coaching, that may be applicable for occupational health physiotherapists, involves developing the knowledge and skills of other employees that relates to their specific competencies (Ciampa, 2005). This may take place during normal working hours using the actual tools, equipment, documents or materials that employees will use when fully trained (Ciampa, 2005). This approach is often referred to as "on-the-job training" and has a general reputation as being the most effective method for developing vocational work because it involves the employee learning at their place of work while they are engaged in the actual job (Ciampa, 2005, p.46). Ciampa (2005) recommended that a person with substantial coaching experience undertakes the job coaching role, which may also be supported by formal classroom teaching, web-based technology or video conferencing. As such, occupational health physiotherapists will need to clearly outline which features of the employee's job they are competent to coach, potentially even necessitating upgrading their skills or receiving formal coaching qualifications to ensure that they understand and uphold the levels of professionalism, standards and ethics required to be a coach (Renton, 2009).

5.8 Summary

This chapter presented the findings and discussed the role of occupational health physiotherapy from the perspectives of different stakeholders in relation to the ACPOHE

(2012a) Framework, literature and practice. New components of the role of occupational health physiotherapy were uncovered, namely agent to organisation, impartial approach, direct access care, expertise, role identity, specific vocational rehabilitation, health training. Participants felt that a core role of occupational health physiotherapists was being an agent to the organisation and client, and this dual role consisted of balancing their clinical work while dealing with organisational needs. Furthermore, another component of the occupational health physiotherapy role reported by participants was maintaining an impartial approach. This specifically differentiated the occupational health physiotherapy role from an outpatient role, which was viewed as being patient-centred.

Participants also viewed occupational health physiotherapists as a professional group that could provide direct access care because of their advanced knowledge and clinical reasoning. With this, one of the main roles that participants expected of occupational health physiotherapists was to provide expert advice not only for clinical conditions, but also to managers regarding fitness for work so that there would be no need for clients to be seen by the occupational health doctor or nurse.

Participants also expected occupational health physiotherapists to be clear about their role identity within an occupational health department and be able to manage any role conflicts that may arise between traditional occupational health clinicians. In addition, the contributions of the occupational health physiotherapists involved undertaking job demand analysis and providing specific vocational rehabilitation. Furthermore, besides promoting the health of staff, participants felt that occupational health physiotherapists could contribute to staff training in the form of job coaching to support any skills and knowledge gaps that related to their specific jobs tasks and competencies.

In summary, this chapter brought together the perspectives of occupational health clinicians, workforce managers and clients and provided a more cohesive discussion of the role of

occupational health physiotherapy. The next chapter outlines the development of a multiple-perspective conceptual framework and the role components unique to occupational health physiotherapy practice in order to advance the practice of occupational health physiotherapists. Core concepts, recommendations for professional practice and future research directions are also discussed.

CHAPTER SIX: CONCEPTUAL FRAMEWORK DEVELOPMENT, RECOMMENDATIONS AND CONCLUSIONS

6.1 Introduction

The overall aim of this project was to explore the role of occupational health physiotherapy from the perspectives of different stakeholders (namely, traditional occupational health clinicians, workforce managers and clients) using semi-structured interviews to elicit rich, in-depth information. This qualitative approach helped uncover a wide range of relevant and salient themes on the role of occupational health physiotherapy, generating the appropriate level of detail necessary to inform the research question and fulfil the project outcome. The data analysis process was rigorous and the findings were grounded in the participants' own words. The transparency of the process was assured by describing explicitly all the steps taken.

Participants were based at two different NHS hospitals, and this allowed for the recruitment of a diverse body of clients in terms of age, gender, ethnicity, health and disability and social background. Furthermore, it permitted a dual exploration of the role of occupational health physiotherapy, both in a tangible sense where occupational health physiotherapy was already embedded (Hospital A, Case 1) and in a hypothetical sense by exploring its potential role (Hospital B, Case 2). In total, 28 participants consented and were interviewed, where 17 were from Hospital A (Case 1) and 11 from Hospital B (Case 2). Overall, participants from both hospitals were supportive of the role of occupational health physiotherapists, despite the limited information of this role and the fact that no previous study has explored it with stakeholders from outside the physiotherapy profession.

This chapter addresses the development and implications of a multiple-perspective conceptual framework, core concepts, strengths and limitations of the project, make recommendations for advancing the role of occupational health physiotherapists and outlines

future research directions and the contributions to knowledge. A dissemination strategy is also discussed to ensure the findings of the project are distributed as widely as possible.

6.2 Development of conceptual framework

Chapter 5 discussed the role of occupational health physiotherapy in relation to the ACPOHE (2012a) Framework, literature and practice, and based on this comparative discussion several new components of the role of occupational health physiotherapy were revealed and discussed, namely agent to organisation; impartial approach; direct access care; expertise; role identity; specific vocational rehabilitation; and health training. However, not all of the sub-components are unique to occupational health physiotherapy practice because some of these can be undertaken by occupational health doctors or nurses. I will, therefore, further the discussion in Chapter 5 by discussing the role sub-components unique to occupational health physiotherapy practice, namely employer needs assessment; rapid access intervention; functional capacity evaluations; and work-specific rehabilitation, and discuss how they contribute to occupational health services.

In order to conceptualise the findings of the different stakeholders and the role components occupational health physiotherapists can offer occupational health services, I present a multiple-perspective conceptual framework with the occupational health physiotherapy service at the centre (See Figure 2). The development of the conceptual framework takes into account the perspectives of different stakeholder groups, ranging from meaningful and personal insights to reflections on experiences and is based on the emerging themes. The new role components, beyond the ACPOHE (2012a) framework and literature, are presented. In addition, the sub-components that are either partially or completely unique to role of occupational health physiotherapists are depicted. As shown in Figure 2, these components have an interwoven and dynamic relationship with one another.

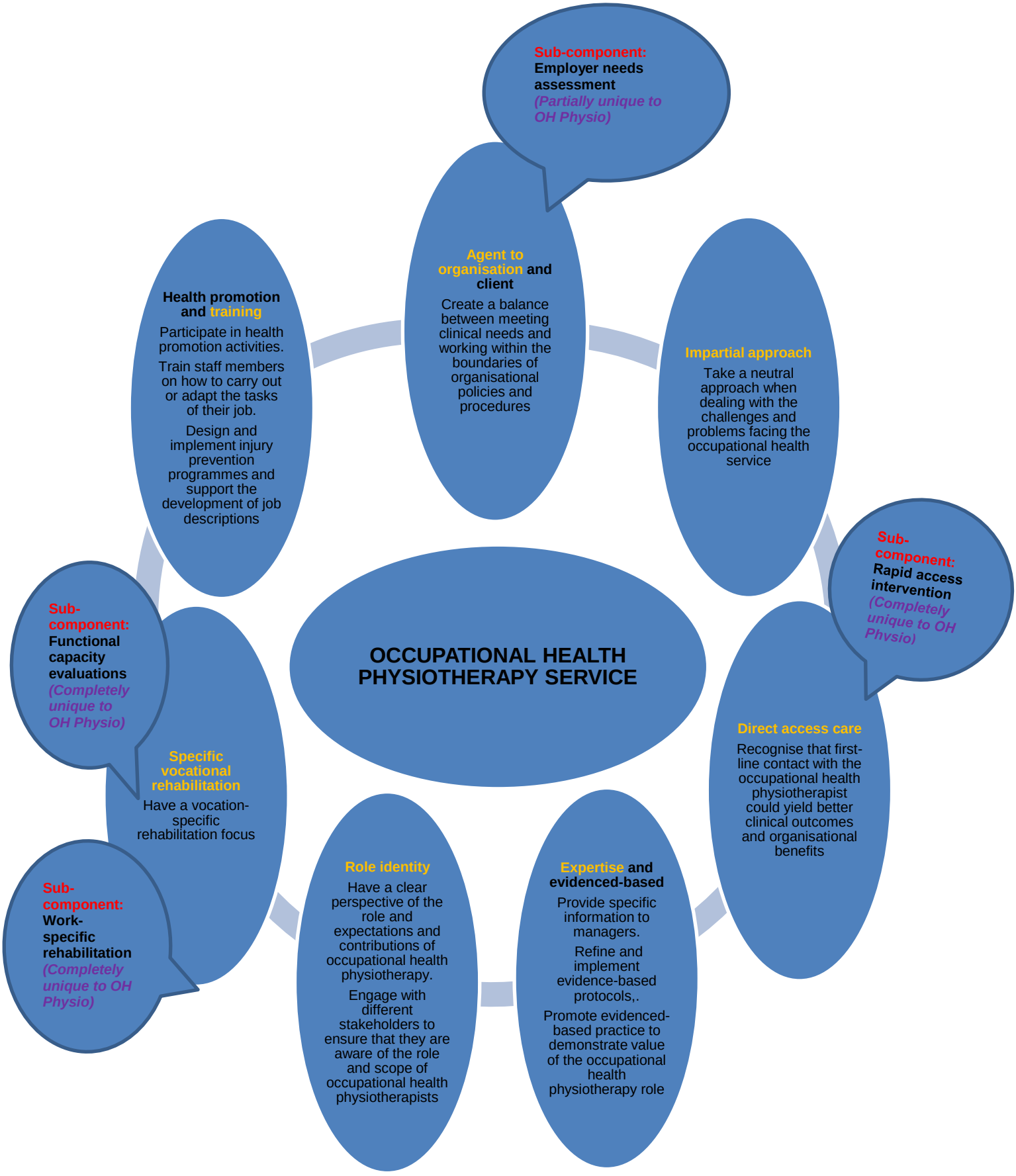

Figure 2: Multiple-perspective conceptual framework [Key: New role components]

Employer needs assessment

This role sub-component is partially unique to occupational health physiotherapists. This is because, according to Sears *et al* (2013), organisations have a wide range of wellbeing needs in order to meet its legal, economic and moral responsibilities as well as to avoid unnecessary ill-health, accidents and injuries, penalties and damage to their reputation. Furthermore, a needs assessment ensures corrective action is taken to make certain that employees are able to work productively as far as is reasonably practicable in an environment and culture in which their health is protected, regular attendance at work is supported, work-related health risks are adequately controlled and good health is promoted (Sears *et al* 2013).

Although a local assessment of employer needs is required at each organisation, as this will determine the extent of occupational health services needed for that particular organisation, I will discuss some of the possible needs of organisations and consider which of these occupational health physiotherapists can offer uniquely within occupational health services, namely:

- Pre-employment health assessments are carried out to screen potential employees for risk factors that may limit their ability to perform a job safely and effectively (Palmer *et al* 2004). It is the role of the immunisation nurse to undertake the health assessment screening and employees have a legislative duty to co-operate with this process to enable the employer to comply with its duty of care;
- Occupational health aspects of the management of sickness absence involve providing line managers with guidance and information on when the employee is able to return-to-work or resume normal work duties. This advice can be provided by a multi-disciplinary occupational health team, including occupational health doctors, nurses, physiotherapists, psychologists, and so forth;

- Health promotion entails organising successful programmes designed to meet the specific needs of employees. It is also important that there is 'buy-in' from senior management, and employees engage with this process so that the health promotion programme is specifically geared to their needs and not designed to be a 'one size fits all' approach. The health promotion programme is usually designed by a multidisciplinary occupational health team in conjunction with other stakeholders, for example the fitness team, public health, infection control, organisational development team, and so forth;
- Staff counselling involves assessing employees for post-traumatic or work-related stress or other psychological problems. This is usually provided by counselling or clinical psychologists, however, other mental health practitioners can also undertake this role, such as mental health nurses; and
- Musculoskeletal health problems including back, neck, shoulder, or knee pain.

Occupational health physiotherapists are able to offer a unique contribution in the form of advanced rehabilitation for musculoskeletal health problems. This includes a biomechanical assessment, a preliminary diagnosis, and treatment. This advanced rehabilitation cannot be offered by occupational health doctors and nurses because their role is advisory exclusively (GMC, 2017; NMC, 2017). The training of occupational health doctors and nurses do not include kinesiology or biomechanics or physical rehabilitation and they are, therefore, unable to provide rehabilitation to support employees with musculoskeletal health problems (Faculty of Occupational Medicine, 2016; Faculty of Occupational Health Nursing, 2018). The pre-registration physiotherapy course includes training in kinesiology, biomechanics and rehabilitation, therefore, in the workplace occupational health physiotherapists are uniquely placed to provide employees with rehabilitation following musculoskeletal health problems. The literature documents the benefits that occupational health physiotherapy rehabilitation can offer clients with musculoskeletal health problems, such as improvement in health

outcomes; earlier return-to-work and to usual activities; improved quality of life; and improved physical and mental functioning (Addley *et al* 2010; Phillips *et al* 2012; Pizzari and Davidson, 2013).

Rapid access intervention

Rapid access intervention in the context of occupational health refers to circumstances where clients are able to refer themselves immediately for physiotherapy intervention. This role sub-component is distinctive to what occupational health physiotherapists can offer occupational health services because occupational health doctors and nurses do not provide any intervention. To reiterate, their role is advisory exclusively (GMC, 2017; NMC, 2017).

The wide range of interventions that occupational health physiotherapists can offer occupational health services include cryotherapy, heat therapy, electrical stimulation, range of motion exercises, strengthening exercises, soft tissue and joint mobilisations. The benefits of these interventions include a reduction in pain, improvements in joint range and muscle strength, better physical and mental functioning at work, and improved quality of life (Addley *et al* 2010; Phillips *et al* 2012; Pizzari and Davidson, 2013). In the study by Addley *et al* (2010), 87% (n=58) of clients indicated that occupational health physiotherapy prevented them from taking time off work, and of those that were absent from work, 89% (n=8) reported that occupational health physiotherapy enabled them to return to work earlier. The loss, therefore, to the organisation in terms of lost productivity are minimised. Assiri (2016) reported that many organisations place a high value on productivity by emphasising the need to sustain it to ensure the financial stability of the business. However, sustaining productivity requires the organisation to maintain a healthy workforce and occupational health physiotherapists, unlike occupational health doctors and nurses, are able to support employees recover from injuries through rapid access interventions, which in turn, improves productivity.

Functional capacity evaluations

The purpose of functional capacity evaluations is to provide standardised, objective and unbiased information for an employer or potential employer regarding the ability of an employee to undertake the demands of the job (Reesink *et al* 2007). This role sub-component is unique to occupational health physiotherapists, because it involves an advanced neuro-muscular and biomechanical assessment as part of the overall process, for which occupational health doctors and nurses are not trained to undertake (Faculty of Occupational Medicine, 2016; Faculty of Occupational Health Nursing, 2018). The neuro-musculoskeletal and biomechanical assessment provides the occupational health physiotherapist with information to identify clinical signs associated with contraindications for functional testing or signs that should be monitored closely during testing. Furthermore, it permits the occupational health physiotherapist to provide a mechanical preliminary diagnosis in order to understand and comment on the clinical nature of the problem and the impact this may have on the capacity of the employee for work.

The value of functional capacity evaluations for occupational health services are illustrated in the following three studies, namely:

Oesch (2006) investigated the influence of functional testing on decision making in medical fitness assessments for work. This study used a randomised control trial and compared functional-centred treatment versus pain-centred treatment in patients with chronic low back pain. Occupational health doctors issued fitness for work certificates on completion of the treatment. In the functional-centred treatment group, occupational health doctors had the results of the functional capacity evaluation while this was not available in the pain-centred treatment group. Three experts assessed the quality of the work information provided on the fitness for work certificates and found that this differed significantly between the two groups with a trend towards a higher work capacity in the functional-centred treatment group. Oesch (2006) concluded that functional capacity evaluations positively influences quality of

information regarding working capacity on medical fitness for work certificates in patients with chronic low back pain.

Wind *et al* (2006) explored how experts perceived the utility of functional capacity evaluations for return-to-work and disability claims. Twenty-one occupational health doctors and twenty-nine disability claim experts were interviewed by telephone using a semi-structured interview schedule. The occupational health physicians valued the utility of functional capacity evaluations as 6.5 on a scale of 0-10, while the disability claim experts was 4.8. Occupational health physicians perceived functional capacity evaluations to be more useful than disability claim experts.

Wind *et al* (2009) explored the complementary value of functional capacity evaluations of occupational health doctors assessing physical work ability of employees with musculoskeletal disorders. A self-formulated questionnaire was presented to the occupational health doctor after they viewed the functional capacity evaluation report and were asked whether they perceived the functional capacity evaluation information to be of complementary value to their judgement of the physical work ability of the employee. Twenty-eight occupational health doctors completed the questionnaire, of which 19 (68%) reported that the information from the functional capacity evaluations were of complementary value to their assessment; half (n=14, 50%) reported that the information from the functional capacity evaluation report reinforced their professional judgement, and in some cases (n=4, 14%) reported a change of opinion about the physical work ability of an employee after reading the report. Furthermore, according to Wind (2009), 16 (57%) occupational health doctors intended to involve functional capacity evaluation information in future physical work ability assessments.

Work-specific rehabilitation

Work-specific rehabilitation is a work-oriented treatment programme with the intention of restoring an employee's physical, functional and vocational skills in preparation for returning productively to the workforce (Briand *et al* 2007). Although the majority of employees with work-related injuries will require conventional physiotherapeutic interventions, it is important for occupational health physiotherapists to identify those employees requiring more comprehensive work-specific rehabilitation in a timely manner. Increasing the timeliness of work-specific rehabilitation helps reduce the employee's time away from work and any compensation costs, thereby decreasing the potential for worsening the condition and associated expenditure on salary replacement (Loisel *et al* 2005).

This role sub-component is unique to occupational health physiotherapists, because it involves not only the conventional physiotherapeutic modalities, but also functional work-specific rehabilitation of the critical work demands as part of the overall process, for which occupational health doctors and nurses are not trained to undertake (Faculty of Occupational Medicine, 2016; Faculty of Occupational Health Nursing, 2018). The functional work-specific rehabilitation programme depends on what adaptations are appropriate for an employee to undertake their job tasks following an in-depth analysis of their workplace. Work-specific rehabilitation involves functionally mimicking the job role, correcting functional postures and tasks, by coaching employees to practice work activities and procedures within a therapeutic framework in order to train work-specific deficits step by step (Johnson *et al* 2001). Furthermore, it allows the occupational health physiotherapist to monitor the employee's safety practices, productivity, working behaviours, use of tools and equipment and complex job functions (Schonstein *et al* 2003). Clients can, therefore, progressively regain confidence in their work-related abilities, thereby eliminating their fears of strain and demands of their workplace before they return to work.

6.2.1 Core concepts

Chapter 5 discussed the role of occupational health physiotherapy in relation to the ACPOHE (2012a) Framework, literature and practice, and based on this comparative discussion several new components of the role of occupational health physiotherapy were revealed and discussed. The discussion above on the development of the conceptual framework focussed on the role sub-components that occupational health physiotherapists can uniquely offer occupational health services. This section will focus on the core concepts which I developed by mapping and interpreting the salient and dynamic issues from the multiplicity of evidence in this project. This process resulted in the development of three core concepts about the role of occupational health physiotherapy, namely: (a) risk work, (b) professional identity, and (c) coaching. Furthermore, the Chetty (2018) Framework of Occupational Health Physiotherapy is now presented linking the core concepts of risk work, professional identity and coaching to the projects' conceptual framework (See Figure 3).

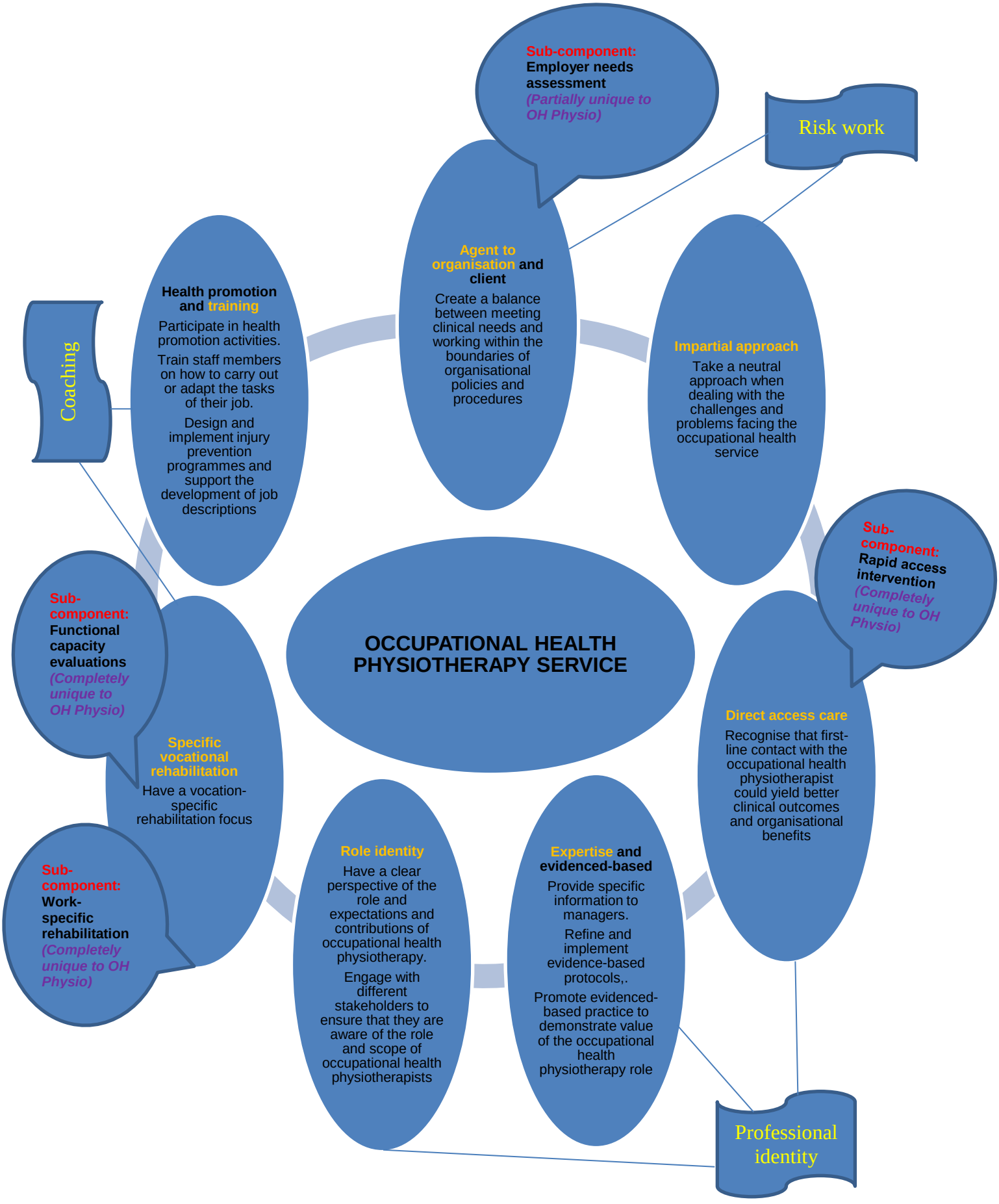

Figure 3: Chetty (2018) Framework of Occupational Health Physiotherapy

Risk work

Translating risk information into difference contexts for different audiences was central to risk work and reported in all stakeholder groups. Furthermore, risk information must be converted into auditable data for use within the organisation (Gale *et al* 2016). This is consistent with the findings of this project in which participants perceived occupational health physiotherapists as an agent to both the organisation and client. In this regard, the occupational health physiotherapist is required to play a dual role by not only identifying the risks involved in a particular case but also linking this information back to the organisation. Flynn (2002) highlighted the issue of epistemological uncertainty for which the health professional must draw on other forms of knowledge about risk in the translation process. In this regard, a variety of terms have been used in the literature, such as tacit knowledge; broad, practical experiences; intuitive expertise and embodied knowledge (Gale *et al* 2016). In the context of the role of occupational health physiotherapy this would imply that the knowledge and skills for problem solving and decision making in risk work would not only require an evidenced-based approach, as reported in the findings of this project, but other forms of knowledge gained through a broad range of experiences and learning.

Minimising risk in practice involves supporting behavioural changes in clients and organisations, healthcare interventions, or developing new policies or procedures (Gale *et al* 2016). The findings of this project, ACPOHE (2012a) Framework and literature largely support the role of occupational health physiotherapists in minimising risk and maximising safety. Crucially, however, when non health-related risks are at play, such as poor management practices, it is unclear from the ACPOHE (2012a) Framework and the literature to what extent occupational health physiotherapists have a role of responsibility in mitigating the organisational elements of risk work. With regards to the findings of this project, on one end of the spectrum the occupational health physiotherapist is an agent to the client and responsible for minimising risk through functional capacity evaluations, job demand analysis, work-specific rehabilitation and support for injuries at work. At the other end of the spectrum,

the organisation is accountable for any negative impact their practices may have on their employees, and the occupational health physiotherapist as an agent to the organisation is tasked with the responsibility, at least in part, in supporting the organisation deal with their negative practices, such as imposing political or religious views in policy making decisions, bullying and harassment behaviours, or the misinterpretation of health and safety legislation.

Caring in the context of risk involves supporting clients make informed choices, or preventing undue harm after receiving risk information (Gale *et al* 2016). Providing care for clients can sometimes be hard to reconcile with the organisational aspects of risk work. In other words, there is accountability for occupational health physiotherapists to gather and transfer risk information to the organisation. This accountability to the organisation may threaten the physiotherapist-client trust relationship if clients perceive their department is being 'reported' to the organisation for their risk behaviours. In this regard, the findings of this project indicate that occupational health physiotherapists must maintain an impartial approach. A fundamental challenge, therefore, for occupational health physiotherapists is negotiating with both clients and the organisation about what is 'normal' and 'at risk' behaviours, to demonstrate not only their commitment to risk minimisation, but to do it in a way that is not perceived as 'taking sides' with the organisation and vice-versa.

Professional identity

To date no studies have been published specifically on the professional identity of an occupational health physiotherapist. The traditional interpretation by the physiotherapy profession has been the notion that identity is something that is acquired by novices in the early stages of their training (Davies *et al* 2011). The search for professional identity of physiotherapists has been a consistent focus of attention among researchers over the last decade (Roskell, 2013). This effort has led to the notion of physiotherapists engaging in identity work as they seek strategies to enact their professional identity in the workplace (Hammond *et al* 2016).

Professional identity in physiotherapy appears to be more complex than traditionally thought. According to Hammond *et al* (2016) the construction of professional identity by physiotherapists is an ongoing and dynamic process in which physiotherapists make sense and interpret their professional identity based on evolving attributes, beliefs, values and motives. Furthermore, Hammond *et al* (2016) stated that physiotherapists co-construct their identity of being a physiotherapist within intra-professional and inter-professional communities of practice. The latter is significant because it implies that the professional identity of a physiotherapists' role, image and practice is informed not only by the profession, but also by stakeholders outside the profession, and thereby mediated by workplace discourses, boundaries and hierarchies.

In the UK the healthcare system is changing with a national focus on efficiency savings and there is increasing expectations for physiotherapists to articulate their role responsibly and transparently within a clinical governance framework in order to demonstrate the value and contributions of the physiotherapy profession (CSP, 2011). Furthermore, there are societal changes with the integration of different cultures, ethnic backgrounds and religious beliefs and this provides research opportunities for the physiotherapy profession to gain insights on its role through gender and ethnic diversity. In this project the two NHS hospitals were strategically chosen to ensure that each served a very different population. Hospital A (Case 1) is situated in an affluent area serving a largely homogenous population. Hospital B (Case 2), on the other hand, serves a more culturally diverse population and is situated in a relatively deprived area. This strategy promoted the recruitment of a diverse body of participants in order to reflect societal changes and to authentically represent the current NHS healthcare system (See Table 7).

It is remarkable, however, that no participant made reference to the role of occupational health physiotherapists in promoting the equality, diversity and inclusion agenda. One possible explanation for this omission is that participants may have felt that this agenda is

beyond the scope of one professional group. In a country of increasing ethnic, cultural and religious beliefs, a profession that can understand, accommodate and assimilate the perspectives of stakeholders from different backgrounds will be in a position to better serve. Greater ethnic, gender and religious consciousness within the physiotherapy profession will help promote its professional identity.

Coaching

The past decade has seen greater acceptance of coaching as a method of enhancing workplace competence (Ladyshewsky, 2006). Those that have participated in this learning experience often report positive outcomes (Ladyshewsky, 2006). In this project, a new component to the role of occupational health physiotherapy was coaching employees to learn new techniques or adapting current practices to support those with disabilities. It would be naïve, however, to assume that every coaching experience is a success. One challenge that can develop in a coaching role is competition and the consequence is disengagement between the coach and learner (Thorne, 2001).

This begs the question as to whether occupational health physiotherapists are adequately prepared for the role of coaching because, as pointed out earlier, putting two people together and asking one to coach the other is not guaranteed to succeed. Sue-Chan and Latham (2004) highlighted that failure to understand the drivers that promote co-operative behaviour is often the reason why so many well-intended coaching programmes fail. According to Ragins *et al* (2000) coaching relationships is first and foremost a social relationship and one that must be managed appropriately. Ragins *et al* (2000) further stated that once trust is established and coaches acquire the requisite skills to coach and communicate appropriately, only then can the journey be successful for both parties.

The skills required for undertaking a coaching role are numerous. Coaches need to understand basic group processes such as leadership, conflict management and decision

making (Bolch, 2001). Furthermore, attributes such as self-assessment, interpersonal skills, communication skills, ability to give and receive constructive feedback, problems solving, critical thinking, professionalism and stress management also needs to be developed (Bolch, 2001). There are no studies focussing specifically on occupational health physiotherapists fulfilling the duties of a coach as part of their role. A recent randomised controlled study, however, on the additional effects of a work-related psychosocial coaching intervention compared to physiotherapy alone, found that the group that received the coaching intervention exhibited a significant improvement of work ability in reference to the physical working demands and work-related wellbeing, which was increased further in the 12 weeks after the intervention (Becker *et al* 2017). The results suggest that work-related coaching, beyond physiotherapy, can support the improvement of work ability and work-related wellbeing. While the role of a coach was traditionally undertaken by coaching psychologists (Frisch, 2001), there is no reason why occupational health physiotherapists cannot develop and become competent job coaches.

As mentioned previously in the discussion, one aspect of coaching that may be applicable to occupational health physiotherapists involve developing the knowledge and skills of other employees that relates to their specific competencies (Ciampa, 2005). As such, occupational health physiotherapists will need to clearly outline which features of the employee's job they are competent to coach, potentially even necessitating upgrading their skills or receiving formal coaching qualifications to ensure that they understand and uphold the levels of professionalism, standards and ethics required to be a coach (Renton, 2009).

Summary

The consideration of risk work has significant implications for occupational health physiotherapists. The problems in the workplace precipitate a curative-focused health approach, even though there is need for a more preventative approach to managing health risks (NHS England, 2015). It is clear, however, from my experiences as an occupational

health physiotherapist that aspirations of a preventative approach have not been met with adequate resources. Without adequate resources the scope for future exploration of ways in which the preventative management of health risks becomes an integral component of the role of occupational health physiotherapists remains elusive.

The construction of a professional identity had created a challenge for occupational health physiotherapists to rearticulate their thinking and actions. While the construction of a personal identity is fed by personal values and motives, in the workplace a professional identity is influenced by the interplay of ethical and moral reasoning (Anand *et al* 2005). In the context of this project, occupational health physiotherapists will need to rearticulate what they believe, value and know. If occupational health physiotherapists take on the challenge of creating a professional identity within an occupational health department, then a further tension exists about how this identity can be co-constructed with stakeholders from outside the physiotherapy profession because societal changes in healthcare today requires the physiotherapy profession to adopt alternative and constantly changing positions.

The challenges of occupational health physiotherapists undertaking a coaching role in the workplace cannot be underestimated. However, by understanding the relationship between coaching skills and learner preparedness, occupational health physiotherapists can use this information to build coaching systems that will support not only their ongoing development and competence in this field of practice but also to have a positive effect on the achievement of employees.

6.2.2 The use, implications and recommendations for the conceptual framework

Broadly, the conceptual framework can be used:

- to promote the value of occupational health physiotherapy to a variety of stakeholders (such as commissioners, policy-makers, service planners, senior executive management and so forth);

- by organisations (like universities and employers) wanting to develop educational courses or postgraduate programmes to support the developmental needs of occupational health physiotherapists;
- to develop and encourage physiotherapy careers in occupational health (such as with new graduates and physiotherapists interested in specialising in occupational health practice); and
- by professional organisations (including the Association of Chartered Physiotherapists in Occupational Health and Ergonomics, Health and Care Professions Council, International Federation of Physical Therapists working in Occupational Health and Ergonomics) to help inform the standards required to practice occupational health physiotherapy and/or the criteria for advanced membership in the organisation.

Locally, implementing new role components in practice can be highly unpredictable (Srivastava *et al* 2008). However, in spite of the unpredictability the conceptual framework can aid occupational health physiotherapists in negotiating new and advanced working practices and help embed the role within the mandate of the occupational health service. In hospitals with no occupational health physiotherapists, it can serve as a useful reference guide about the unique role of occupational health physiotherapists and provide the organisation with a better insight into what occupational health physiotherapists can offer occupational health services.

There are implications for the use of this conceptual framework in relation to practice and these are listed below:

- Any changes to the current role of occupational health physiotherapy is beyond the scope of the individual physiotherapist;

- Service delivery changes within occupational health services are required at both individual and organisational levels;
- Attitudinal and organisational barriers, such as financial constraints, can hinder the process of implementing changes to the occupational health physiotherapy service;
- The new role components, some of which are unique to occupational health physiotherapy practice, can appear as disengaged concepts.

My view is that the occupational health physiotherapists must take responsibility for the quality of their professional practice and the way in which their role within that organisation develops to inform occupational health service delivery, and in this regard I recommend the following:

- Occupational health physiotherapists should recognise the considerable influence of ACPOHE and proactively engage with this professional network in order to gain national support to promote the advanced practice role of occupational health physiotherapists;
- Occupational health physiotherapists should identify a variety of influential stakeholders to assist with articulating the benefits of occupational health physiotherapy to occupational health departments, clients, and commissioners. The influential stakeholders may include Heads of Department, for example Head of Therapy, Nursing and Medical Directors; staff representative groups, for example representatives from the disability; lesbian, gay, bisexual, transgender; black and minority ethnic forums; trade unions; and so forth. It is important to note that influential stakeholders from both within and outside the physiotherapy profession should be considered;
- Occupational health physiotherapists will also need to be mindful of the costs, such as training courses or fees for specialist external mentorship, of implementing any new components of their role, and what the organisation can afford. This will help to

ensure that any funding proposals put forward is reasonably costed to minimise rejection;

- Occupational health physiotherapists should engage with the new components of their role articulated in the conceptual framework, in particular the components unique to their role, in order to promote the advanced rehabilitation that occupational health physiotherapists contribute to occupational health services which, furthermore, cannot be provided by occupational health doctors or nurses.

In summary, the conceptual framework highlights the complexity of the role of occupational health physiotherapy. Through the process of development of the conceptual framework, key components of this role underpinning the conceptual framework, many of which have previously been unarticulated, has now been revealed. However, these unarticulated components are not presented as disengaged concepts intended to recreate the role of occupational health physiotherapy, but rather to advance the current ACPOHE (2012a) occupational health physiotherapy framework and add to those components drawn from the literature. Personally, I hope to secure a meeting with the ACPOHE Research Officer to discuss the findings of my project, how it may inform the current ACPOHE (2012a) Framework and to explore the possibility of securing funding to further my research.

6.3 Future research directions

There is a dearth of literature on the role of occupational health physiotherapy and, therefore, there is no limit to the scope of research that may be undertaken for occupational health physiotherapy. Firstly, a logical progression to this project is action research. Action research could be a way to evaluate the impact of the multiple-perspective conceptual framework through implementation with organisations embracing a range of occupational health services and occupational health physiotherapy models.

Secondly, the perspectives of different stakeholders should not be ignored in future physiotherapy research because multiple stakeholder analysis is in line with best practice in the NHS (Friedman and Miles, 2002). It is hoped that physiotherapists will think more deeply about how stakeholder groups from outside the physiotherapy profession view their role and placements in occupational health departments. Future research can also explore the role of occupational health physiotherapy using stakeholders not included in this project, such as GPs, senior executive management, risk and safety advisors, public health consultants, solicitors, trade unions, and so forth. In addition, the private and voluntary sectors should also be considered as potential project sites in order to build upon the components of the occupational health physiotherapy role that emerged from this project.

Thirdly, the core concepts have identified further topics of research such as the role of occupational health physiotherapy in risk work, or how occupational health physiotherapists construct their professional identity, or the role of the occupational health physiotherapist as a job coach.

6.4 Strengths and limitations

The major strength of this project was the use of a multiple case study approach. The multiple case studies permitted for a dual exploration of the role of occupational health physiotherapy both in a tangible sense where occupational health physiotherapy is already embedded and in a hypothetical sense by exploring its potential role, and therefore it is hoped that the findings of this project will resonate with organisations where occupational health physiotherapy is in place and also where it is not available.

The use of holistic units of analysis within each NHS hospital was critical to exploring the overall components of the role of occupational health physiotherapy from different stakeholders and how this added to the current knowledge. By using only two cases,

however, it is impossible to ascertain how many more different and unanticipated components of the role of occupational health physiotherapy actually exist in the NHS.

The sample of participants in this project achieved diversity of geographical area, gender and age, but has reflected the perspectives of different stakeholders only in the NHS. Hence, it cannot be claimed that the findings of this project represent the role of occupational health physiotherapy in all of the NHS or other organisational settings, such as the private or voluntary sectors. However, there is the possibility of the findings being transferable to other NHS or organisational settings. Additional stakeholders such as GPs, risk and safety advisors, public health consultants and even government and hospital board members may have been worthwhile pursuing. However, given the limited resources for this project, another project would be required to comprehensively address the perspectives of any additional stakeholders.

The strength of the multiple-perspective conceptual framework is that it promotes a collaborative approach to implementing the role of occupational health physiotherapy because it has considered the perspective of different stakeholders, thereby moving away from professional isolation (that is, a physiotherapy-only perspective) and into the real-world interrelationships of the service which will enable the physiotherapy profession to better meet different stakeholder needs and expectations. The qualitative approach taken when developing the conceptual framework could, however, be criticised for its subjectivity and lack of rigour. It should be noted that a lack of objectivity does not mean there is a lack of rigour. The rigorous strategies used to enhance the research trustworthiness of the project were clearly explained in Chapter 4.

6.5 Contributions to knowledge

Firstly, this project has provided a fresh approach on the role of occupational health physiotherapy. It has articulated what has not previously been put forth, specifically in

exploring the role of occupational health physiotherapy from the perspectives of stakeholders outside the physiotherapy profession. In doing so, this project has added new insights to the existing evidence and will hopefully stimulate discussion, both within and outside the physiotherapy profession, regarding the benefits of having occupational health physiotherapists embedded within occupational health departments. Secondly, this project has established new components of the role of occupational health physiotherapy, not previously articulated in the ACPOHE (2012a) Framework or literature, namely agent to organisation; impartial approach; direct access care; expertise; role identity; specific vocational rehabilitation; and health training. Furthermore, the sub-components unique to the role of occupational health physiotherapy, namely employer needs assessment, rapid access intervention, functional capacity evaluations, and work-specific rehabilitation, were discussed in relation to how they contribute to occupational health services. In doing so, this project leads to a new way of thinking directed towards embracing and working with the components of the role articulated by doctors, nurses, managers and clients. This approach challenges the dominant discourse in physiotherapy which is the 'profession knows best.' Thirdly, this project has tested the feasibility and applicability of using different stakeholders to develop a multiple-perspective occupational health physiotherapy conceptual framework. As such, it has introduced a crafted dialogue with stakeholders from outside the physiotherapy profession as the dominant voices to advance the practice of occupational health physiotherapists. Finally, the implementation of the new role components in the conceptual framework have the potential to change the way occupational health physiotherapy is practiced in occupational health departments.

6.6 Dissemination strategy: education, policy and practice

The findings from this research project have the potential to inform education, policy and practice and each of these will be considered.

Education

An educational dissemination strategy is important to ensure that the information from this project is available to as many different stakeholders as possible. The findings of this project will be disseminated in the form of peer-reviewed publications. The following paper has been accepted for publication:

Chetty, L., Volante, M. and Caldwell, K. (2018) Core concepts of a multiple-perspective conceptual framework for advancing occupational health physiotherapy practice (Work Based Learning e-Journal International)

Another way to disseminate the findings of this project is by presenting them at conferences. Conferences are a useful way to disseminate information in a practical way to delegates who can provide instant feedback (Cohen, 2000). The findings of the project were disseminated at the following conferences:

Chetty, L. (2017) Advancing occupational health physiotherapy practice: a qualitative exploration of the perspectives of clients, *Research Students' Summer Conference*, London, 28th-29th June 2017 (ORAL)

Chetty, L. (2018) Advancing occupational health physiotherapy practice: a qualitative exploration of the perspectives of workforce managers, *Research Students' Conference*, London, 04th September 2018 (ORAL)

Policy

Developing a policy brief for dissemination is important to ensure that the information from this project is available to relevant influential stakeholders (such as commissioners, service managers, trade union representatives). Policy briefs are short documents that present the findings and recommendations of a research project to a non-specialised audience (Jewell and Bero, 2008). It is a stand-alone document, focused on a single topic and usually no more than 2-4 pages long (Jewell and Bero, 2008). Jones and Walsh (2008, p.6) reported that policy briefs can be a "powerful tool for communicating research findings" to influential

stakeholders who are often constrained by time and overwhelmed by multiple sources of information.

Developing and disseminating a policy brief, in practice, requires an approach that is informed by an understanding of, and engagement with, the key ingredients of effective policy briefs. According to Choi *et al* (2005) the key ingredients of a policy brief to effectively serve its intended purpose are:

- *Focused on achieving the intended goal of convincing the target audience*

My policy brief will focus on the advanced practice role of occupational health physiotherapists and what occupational health physiotherapists can uniquely offer occupational health services.

- *Professional (not academic)*

I understand that in professional practice (unlike academia) my targeted audience is not interested in the research/analysis procedures conducted to generate the evidence, but rather on the problem and potential solutions based on the new evidence. My policy brief, therefore, will focus on the need for advanced rehabilitation in occupational health services, the advanced rehabilitation occupational health physiotherapists can uniquely offer occupational health services, and the potential to achieve positive outcomes by embedding occupational health physiotherapists within occupational health departments.

- *Understandable*

I will use clear and simple language and not medical jargon or physiotherapy-specific language. The structure of my final policy brief will include a title of the document; executive summary; context and importance of the role of occupational health physiotherapy and its unique contribution thereof; critique of options of how occupational health physiotherapy can be provided (that is, in-house or outsourced); and recommendations for embedding occupational health physiotherapists within occupational health departments (that is, the in-house option).

My plan is to disseminate this policy brief at the next workforce health commissioning meeting, with the hope that I am able to secure funding for additional occupational health physiotherapy posts. Furthermore, I will be happy to share this document with other occupational health physiotherapists wanting to secure funding or to help embed their role within occupational health departments.

Practice

One of my initial priorities will be to disseminate the project findings to participants and in this regard I will provide them with a summary sheet. I also intend to make arrangements to share a PowerPoint presentation at each project site if this is required. Furthermore, I hope to secure a meeting with the ACPOHE Research Officer to discuss the findings of my project, how it may inform the current ACPOHE (2012a) Framework and to explore the possibility of securing funding to further my research. I am also planning to contribute a discussion paper to the ACPOHE magazine highlighting the findings of my project and hopefully present my work at the next ACPOHE conference. This will allow my work to be scrutinised by a predominantly occupational health physiotherapy audience in order to aid in its implementation for practice. Finally, I hope to develop my freelance training role and offer training sessions to clinicians and organisations interested in developing or advancing occupational health physiotherapy roles within their organisation.

6.7 Conclusion

The process of contextualising the role of occupational health physiotherapy was a way of uniting the different perspectives of stakeholders without losing the sensitivity of each stakeholder group or letting the perspectives of one stakeholder group dominate the others. This approach clearly showed that occupational health physiotherapy involves more role components than those presented in the ACPOHE (2012a) Framework and literature. The development of the multiple-conceptual framework, therefore, makes an original contribution to knowledge with a potential impact on practice and service delivery.

There are barriers, however, pertaining to advancing the role of occupational health physiotherapy through the emergence of new components of the role. The profession must respond by continuously engaging with different stakeholders and emphasise that occupational health physiotherapy complements rather than competes with the role of traditional occupational health clinicians. It is, therefore, important for occupational health physiotherapists to consult with a wide range of different stakeholders, from within and outside the profession, as part of an ongoing evaluation of its role. The findings from these ongoing evaluations can assist occupational health physiotherapists to critically assess what professional development needs to be in place in order for the role to consistently be successfully embedded within the occupational health service. Developing links and sharing knowledge with other occupational health departments, ideally with an occupational health physiotherapist, and maintaining collaborations with professional occupational health associations, both nationally and internationally, is likely to progress the role of occupational health physiotherapy over the longer term.

In conclusion, this project represents a critical step towards suggesting there are new components of the role of occupational health physiotherapists through the lens of different stakeholders, and has articulated what occupational health physiotherapists can uniquely offer occupational health services. It is hoped that this new insight into the role will encourage physiotherapists to undertake more advanced training, including clinical components (such as functional capacity evaluations, fitness-for-work assessments and case management) along with organisational management and leadership courses, in order to become more confident and effective in their role, which in turn can be used to promote and negotiate an advanced practice role within the occupational health service while maintaining their professional autonomy. Finally, it is hoped that the multiple-perspective conceptual framework can be used to inform the process of updating the current ACPOHE (2012a) Occupational Health Framework for Physiotherapists.

CHAPTER SEVEN: CRITICAL COMMENTARY

7.1 Reflection

7.1.1 Overall reflection

I began this project by presenting a personal reflection of the critical incidents in my life and professional practice that have led to this project inquiry. I will now reflect on the journey over the past four years that has resulted in the completion of the project. Earlier on, I established that this research is not a stand-alone project because it involved the completion of several modules, all of which contributed to the final project.

Choosing a topic was not a difficult task, however very little literature is available on occupational health physiotherapy and this initially impacted progress, especially the literature review. The literature on this topic is essentially non-existent, and therefore I needed to critically review the articles I felt were key to the project and determine gaps in the knowledge base, which initially proved to be rather difficult. However, upon reflection, this lack of literature may have added value to the project because it is confirmation that it is original work and therefore makes a contribution to knowledge in the niche area of occupational health physiotherapy.

After identifying the gaps in the evidence base, I needed to plan my research programme. As part of the research planning and development module, I developed and justified my research methodology and aligned it to a philosophical perspective to best meet the overall aim and objectives of the project. This involved critical thinking because I had initially not considered a philosophical perspective and the assumptions of knowledge for this project. This is because as a practising occupational health physiotherapist, my role is mainly clinical in nature rather than philosophical.

In terms of research methodology, I learnt to critique the various approaches to research and determine the most appropriate fit to best address the project's overall aim and objectives and inform the research question. The information gathered for this project was subjective in nature and analysed using the framework analysis technique. I chose this technique because it emphasised transparency in data analysis and made links between the different stages of the analysis, therefore the interpretation and implementation of the findings can be assumed to be sufficiently robust to strategically affect both in an academic manner and in practice.

Through the process of completing this doctoral project, I realised the in-depth level and critique I was required to undertake to reach the required standard. In considering the research I carried out for my MSc, which was a precursor to this project, I am now able to see the difference and impact of what I have learned. The MSc now seems to be very superficial in its approach compared to this doctoral project.

In summary, this doctoral project has allowed me to undertake and manage a large-scale research project that is at the forefront of knowledge and practice in occupational health physiotherapy; to take a lead role in developing a multiple-perspective conceptual framework in order to advance the practice of occupational health physiotherapists; and to gain recognition in the community of physiotherapy as an expert in the practice of occupational health physiotherapy. The prior coursework modules, thorough review and critique of the literature together with my experience as an occupational health physiotherapist have contributed to the completion the final project report. Finally, the detailed processes used to gather information and complete this project have yielded a multiple-perspective conceptual framework that, in my view, will only serve to advance the practice of occupational health physiotherapists.

7.1.2 Reflection as a worker-researcher

There are many advantages of being a worker-researcher, such as speaking the same insider language; having an invested interest in the setting; understanding the local values, knowledge and taboos; knowing the formal and informal power struggles; and easily obtaining permission to access the research setting and participants, and these all helped to facilitate the research process (Coghlan, 2003). In the context of this project, I am employed in a full-time post as a Senior Occupational Health Physiotherapist at an NHS hospital, and being an NHS employee, I have insider knowledge of NHS processes which assisted in gaining access to the project sites, being accepted by participants and achieving registration with NHS Research Governance departments through NHS-to-NHS agreements.

As a worker-researcher, I also had the benefit of contacting my peers at any time of the week regarding my project, which a non-worker researcher may not be able to do without prior arrangement or appointment. This helped to ensure that any issues arising from my project were dealt with immediately, and this continuity contributed to the project's timely completion. Earlier, I identified occupational health and workforce managers as crucial gatekeepers in facilitating access to the project sites and recruiting participants. According to Lee (2005) researchers require sound interpersonal skills in order to develop rapport with gatekeepers, and although I strived to develop friendly relationships with these gatekeepers, they were also my occupational health peers who were more than willing to give their time, and it was easier for them to share their knowledge and experiences with me because they were able to recognise me not only as a researcher undertaking a project, but also as a peer.

My ability to relate to these managers was a platform which I used to improve my relationship with them, which may be difficult for a non-worker researcher to achieve because their research could potentially be viewed with a degree of suspicion or suspended without the organisation articulating the reasons for doing so (Unluer, 2012). As a worker-

researcher, I also had the advantage of having spontaneous conversations with my colleagues that helped during data collection and gathering rich and contextualised information while also being comfortable to say that I did not understand something and for them to explain it in another way.

Another advantage of being a worker-researcher is that I had an understanding of the difficult personalities within the occupational health speciality, and, therefore, I did not approach occupational health departments where there might be a clash of personalities as a potential project site. This is because I am aware that occupational health managers at particular sites may be hesitant to support the project, not because the manager does not see the value of the project, but simply based on their personality. As a worker-researcher in the NHS and choosing two NHS hospitals as my project sites allowed me to make sense of implicit messages and, therefore, I was able to easily understand what is being said without having to bombard the participant with clarification questions.

There are also disadvantages of being a worker-researcher, such as having a conflicting role duality; overlooking certain routine behaviours; making assumptions about the meanings of events and not seeking clarification; assuming that as a researcher-worker you know the participants' views and issues; the participants may also assume that you, as a worker-researcher, already knows what they know; and having a closeness to the situation may hinder a worker-researcher from seeing all dimensions of the bigger picture (Rooney, 2005).

In relation to this project, I had to consider the fact that as a worker-researcher, I am familiar with routine practices and, therefore, I may overlook certain routine practices mentioned by participants during the interviews and end up not analysing this important data in relation to my topic. One approach of identifying which data is relevant and important is through the process of member checking (Curtin and Fossey, 2007). In this project, the accuracy of the data was checked whereby participants were asked to confirm the key findings of the

discussion at the end of the interview to ensure that the main areas of interest were covered and verified by the participant (Curtin and Fossey, 2007), and this also allowed participants the opportunity to reiterate any part of the discussion that they felt was not adequately covered. In this way, I was able to confirm which data was most congruent with the participants' experiences directly from the participants themselves in order to address the subjective nature of the findings and contribute to the project's trustworthiness (Shenton, 2004). In addition, by allowing participants to check the accuracy of the data at the end of the interview, as opposed to at a later stage, there was support for Creswell's (2009) viewpoint that when participants are given transcripts at a later stage following their participation in the interview in which they contributed to and are asked to verify its accuracy, they often, with the benefit of hindsight, delete their own words from the transcripts, possibly after realising what they had said, resulting in new data emerging from the transcripts rather than from what was actually discussed during the interview.

As a worker-researcher, I also considered that I may not see all the components of the bigger picture and be biased towards certain components (Rooney, 2005). In order to overcome this bias, I was reflexive throughout the course of my project. This helped guide me to minimise my biases. Another aspect I have to consider is that my relationship with my occupational health colleagues sits within a power dynamic and they may be reluctant or uncomfortable to discuss their perspectives fully in front of me. My colleagues may also find it challenging to disagree or freely withdraw from the project because as my work colleagues, they could have felt coerced to participate by virtue of being a colleague. In this project, however, any power relationships was neutralised by being an outsider because I was not employed by either of the two NHS hospitals where I conducted the interviews which allowed participants to be free to contribute their perspectives without reservations.

7.2 Reflexivity

Over the course of this project, I had to look at my personal bias and its relationship to the project. As a Senior Occupational Health Physiotherapist, I had to consider not only how the particular topic had influenced my areas of learning and practice, but also how my overall preconceptions, assumptions and views of the world may have influenced the final project report. This required continuous monitoring of my relationship to the project.

Initially, this involved developing a strong research identity throughout the four-year study period. This was important because it allowed me to approach the project as a researcher. I was able to overcome my biases through the use of a personal reflection diary and regular debriefing sessions with my advisory team. The debriefing sessions allowed me to develop my ideas and recognise my own preconceptions and assumptions. This assisted me in shaping the conduct of the research, in particular, the social aspects such as the interviews, questioning and listening skills by 'parking' my pre-existing beliefs, thoughts and feeling in order to listen and engage with the participants' perspectives. This process of continuous self-monitoring helped to make certain that the project represented the perspectives of different stakeholders rather than my own perspectives on the role of occupational health physiotherapy and this bolstered the project's trustworthiness.

7.3 Impact of the project in practice

It is hoped that this project may also encourage other researchers, in particular physiotherapists, to conduct further research in this area or replicate the project's approach and detailed methodological processes, and include other stakeholders, such as GPs, health and safety representatives, senior executive management and so forth, which can further contribute to the evidence base. The development of the multiple-perspective conceptual framework may set a precedent to other researchers exploring this area and even extend to those exploring the role of physiotherapy in other clinical specialities. The project, therefore, is transferable beyond the selected cases sites and occupational health speciality.

The paucity of knowledge and research in this area, as identified in the literature review, may hinder the development and integration of physiotherapists in occupational health departments. However, the information from this project has hopefully provided clarification for areas of development for the advancement of physiotherapists in occupational health departments. The development of a multiple-perspective conceptual framework for occupational health physiotherapy is, therefore, likely to have a major impact at all levels within the organisation.

The findings of the project can also be transferred to the workplace. As a Senior Occupational Health Physiotherapist, I found myself using the knowledge I gained during the process of completing the project and applying it in professional practice. The process of the transfer of learning to the workplace has brought the project to life and has given me a deep sense of purpose and career validation. After all, the completion of a doctoral project cannot be considered as the ultimate accomplishment if it cannot be applied in a real-life context.

However, the reality is that the transfer of learning to the workplace is not a straightforward process because, according to Holton *et al* (2000), the factors involved in the transfer of learning can have an influence on both an individual's motivation to transfer and on their personal capacity to transfer. In other words, as motivated as any individual may be to transfer what they have learned to work, if they do not have the time, energy or mental space to do so, the learning is unlikely to be transferred (Holton *et al* 2000). Therefore, as I began the process of transferring my learning to the workplace, I realised that I had to have more awareness about taking responsibility for meeting my own learning and development needs, to seek feedback on my performance, to identify my strengths and weaknesses and to develop myself to be able to adapt to the demands of changing situations.

I found this process quite challenging initially because I had to constantly manage the pressing demands of my job while at the same time find opportunities to apply my new

knowledge. I learned that gaining early line management support is crucial in terms of supporting the process of application of newly acquired knowledge and allowing autonomy in the workplace so that I could create my own opportunities to use this knowledge. In addition, Saks and Haccoun (2007) stated that managers can also support their staff by providing an indication of how well the new knowledge is being applied through performance feedback and the impact this is having on the overall service.

Chiaburu and Marinova (2005) went further by suggesting that as well as management support, the transfer of learning should be encouraged by support from peers across the entire organisation. Essentially, a perception that learning is important and valued, which is supported through clear policies and incentives for development encourages motivation to transfer learning and promotes a continuous learning culture (Kirwan and Birchall, 2006). As such, I regularly asked not only my line management for feedback, but I also started to solicit my work colleagues and clients for feedback on my current work practices and I then subsequently reflected back on my prior work to discern whether there were any improvements. Any changes from my past work compared to my current work provided me with a baseline of how effectively I managed to transfer learning from this project to my workplace. This allowed me to identify my strengths and weaknesses and structure my areas of future development accordingly. Over time, I anticipate that the transfer of learning from this project will impact positively on both my role as a Senior Occupational Health Physiotherapist and the organisation as my new knowledge contributes to enhanced professional practice and service outcomes.

In summary, the impact of this project in terms of the level of research and its contribution to knowledge, might not only enhance the performance of my work and practice, but may also affect the work and practices of other occupational health physiotherapists. This project, therefore, is transferable to other occupational health physiotherapists, which in my view can only advance professional practice in this clinical speciality. In addition, although this project

was carried out in the NHS, it may also be transferable to other occupational health settings, such as the private and voluntary sectors, in order that they may benefit from it if they wish to add occupational health physiotherapists to their occupational health team or advance the role of existing occupational health physiotherapists.

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Appendix 1: Health and Social Care Ethics Committee approval letter

School of Health & Education
The Burroughs
Hendon
London NW4 4BT
Main Switchboard: 020 8411 5000

05th January 2016

HEESC APPLICATION NUMBER: MH35 Laran Chetty & Dr Margaret Volante

Dear Laran and Dr Volante

Re your application titled: "A qualitative case study exploring the role of occupational health physiotherapy from the perspectives of different stakeholders".

Thank you for submitting your revised application. I can confirm that your application has been given approval from the date of this letter. This approval is valid until 31st May 2018. If you require an extension to this end date please complete Form E which can be found at http://ethics.middlesex.wikispaces.net/Health+Studies

Please ensure that you contact the ethics committee via Leeann Bradley HEethicsSubC@mdx.ac.uk if there are any changes to the study to consider possible implications for ethics approval. Please quote the application number in any correspondence.

The committee would be pleased to receive a copy of the summary of your research study when completed.

Good luck with your research.

Yours sincerely

Dr Gordon Weller
Chair of Health and Social Care Ethics Committee

Appendix 2: Letter of sponsor

Date 18th January 2016

TO WHOM IT MAY CONCERN

Re: Sponsor Letter – Laran Chetty

This is to confirm that Middlesex University has declared itself as a sponsoring organisation for research projects that involve NHS patients, staff and other resources as described in the *Research Governance Framework for Health and Social Care* (DoH 2000). Middlesex University confirms that it accepts the responsibility of Sponsor Organisation, and has structures in place, to ensure that:

- The research proposal respects the dignity, rights, safety and wellbeing of participants and the relationship with care professionals.
- The research proposal is worthwhile, of high scientific quality and represents good value for money.
- The research proposal has been approved by an appropriate research ethics committee.
- *Appropriate arrangements are in place for registration of trials.
- The principal investigator, and other key researchers, have the necessary expertise and experience and have access to the resources needed to conduct the proposed research successfully.
- The arrangements and resources proposed will allow the collection of high quality, accurate data and the systems and resources proposed are those required to allow appropriate data analysis and data protection.
- Intellectual property rights and their management are appropriately addressed in research contracts or terms of grant awards.
- Arrangements proposed for the work are consistent with the Department of Health research governance framework.
- Organisations and individuals involved in the research all agree the division of responsibilities between them.
- There is a clear written agreement identifying the organisation responsible for the ongoing management and monitoring of the study, whether this is the organisation employing the researchers, the sponsor, or another organisation.
- *Arrangements are in place for the sponsor and other stakeholder organisations to be alerted if significant developments occur as the study progresses, whether in relation to the safety of individuals or to scientific direction.
- An agreement has been reached about the provision of compensation in the event of non-negligent harm and any organisation, including the sponsor itself, offering such compensation has made the necessary financial arrangements.
- Arrangements are proposed for disseminating the findings.
- All scientific judgements made by the sponsor in relation to responsibilities set out here are based on independent and expert advice.
- Assistance is provided to any enquiry, audit or investigation related to the funded work.

* *Working towards establishing the structures to achieve these indicators.*

I therefore confirm that Middlesex University will be the sponsor for the research being undertaken by **Laran Chetty,** project title, "*A qualitative case study exploring the role of occupational health physiotherapy from the perspectives of different stakeholders*".

Signed on behalf of Middlesex University

Daniela Pantica
School Executive Administrator
School of Health and Education
Middlesex University

Date: 18/01/2016

Appendix 3: NHS Research Ethics letter

South East Scotland Research Ethics Service

1 Headquarters Waverley Gate
2-4 Waterloo Place
Edinburgh
EH1 3EG

Waverley Gate, 2-4 Waterloo Place
Edinburgh EH1 3EG
Chair: Mr Brian Houston
Chief Executive: Tim Davison
Lothian NHS Board is the common name of Lothian Health Board

Date: 27/01/2016

Your Ref:
Our Ref: 16/SS/0043
Enquiries to: Alex Bailey
Direct Line: 0131 465 5679
Email: alex.bailey@nhslothian.scot.nhs.uk

Name: Mr Laran Chetty
Address: Royal Free London
NHS Foundation Trust
Work Address Royal Free Hospital
Pond Street
London
NW3 2QG

Dear Laran,

Project Title: A qualitative case study exploring the role of occupational health physiotherapy from the perspectives of different stakeholders

You have sought advice from the South East Scotland Research Ethics Service on the above project. This has been considered by the Scientific Officer and you are advised that, based on the submitted documentation (email correspondence and IRAS REC form: 184601/910181/1/782), it does not need NHS ethical review under the terms of the Governance Arrangements for Research Ethics Committees (A Harmonised Edition).

The advice is based on the following:

- *The project is a survey seeking the views of NHS staff and patients on service delivery*

If the project is considered to be health-related research you will require a sponsor and ethical approval as outlined in The Research Governance Framework for Health and Community Care. You may wish to contact your employer or professional body to arrange this. You may also require NHS management permission (R&D approval). You should contact the relevant NHS R&D departments to organise this.

For projects that are not research and will be conducted within the NHS you should contact the relevant local clinical governance team who will inform you of the relevant governance procedures required before the project commences.

This letter should not be interpreted as giving a form of ethical approval or any endorsement of the project, but it may be provided to a journal or other body as evidence that NHS ethical approval is not required. However, if you, your sponsor/funder feel that the project requires ethical review by an NHS REC, please write setting out your reasons and we will be pleased to consider further. You should retain a copy of this letter with your project file as evidence that you have sought advice from the South East Scotland Research Ethics Service.

Yours sincerely,

Alex Bailey
Scientific Officer
South East Scotland Research Ethics Service

Appendix 4: Research and development letter at Hospital A

Research Management and Governance Department
Governance & Risk Office, Level 4 Kenwood Wing
Whittington Health
Magdala Avenue
London
N19 5NF

Tel: 020 7288 3064
Email: whh-tr.researchanddevelopment@nhs.net

28 January 2016

Laran Chetty
Senior Physiotherapist
Royal Free London NHS Foundation Trust
Physiotherapy Department
Royal Free Hospital
Pond Street
London
NW3 2QG

Dear Laran

Many thanks for your emails dated 28th January 2016 and for submitting the HRA decision tool response for your study: A qualitative case study exploring the role of occupational health physiotherapy from the perspectives of different stakeholders.

As the project has not been classified as research I can confirm that you do not require R&D approval. Please contact the Clinical Governance Department to discuss requirements for them to register your project.

Wishing you success with your endeavours.

Best wishes,

Kathryn Simpson

Kathryn Simpson
Research Facilitator

Appendix 5: Research and development letter at Hospital B

Research & Development Department
Royal Free Hospital

Pond Street
Ground Floor, Room 649
London NW3 2QG

www.royalfree.nhs.uk
Switchboard: 020 7794 0500 EXT: 33211
Fax: 020 7830 2468
Direct line: 020 7317 7558

28/01/2016

Laran Chetty
Senior Physiotherapist
Royal Free London NHS Foundation Trust
Physiotherapy Department
Royal Free Hospital
Pond Street
London
NW3 2QG
United Kingdom

Dear Laran

Many thanks for your email dated 28th January 2016, concerning your project.
As the project has been classified as a service evaluation I can confirm that you do not require R&D approval. If you can contact the audit lead for your department, they will register your project.

If you need any other assistances please do not hesitate in letting me know.

Yours sincerely

Neil Hubbard
Interim R&D Manager
Research and Development
Royal Free London NHS Foundation Trust

Appendix 6: Letter to occupational health manager at Hospital A

[Occupational health manager's name and surname]
[Address]

[Date]

Dear [Manager's name]

Re: A qualitative case study exploring the role of occupational health physiotherapy from the perspectives of different stakeholders

I am a doctoral student at Middlesex University London who is planning to conduct research on the role of occupational health physiotherapy from the perspectives of different stakeholders at the [Name of NHS hospital]. I am writing to inform you of the project and the requirements and to gain your support to carry it out in the occupational health department.

I am a registered physiotherapist and also a NHS employee, working full-time in occupational health at the [Name of NHS hospital]. I am therefore familiar with the NHS, and its processes. The University Health and Social Care Ethics committee has given ethical approval for the project to take place, and the research is registered with the Trust's Clinical Governance department. I will adhere to ethical principles and research governance regulations throughout my project.

The project plans to involve one-to-one interviews with occupational health clinicians and with clients that are referred to the occupational health physiotherapist.

Should you or another member of your team have any objections to the project taking place in your department then please do not hesitate to contact me or the academic advisor. The contact details are available on the information sheets enclosed. I will telephone you after about a week of receiving this letter to discuss the requirements of the project and I thank you in advance.

Yours sincerely

_____

Mr Laran Chetty, MSc, MCSP
Registered Physiotherapist
Doctoral Student, Middlesex University

Appendix 7: Letter to occupational health manager at Hospital B

[Occupational health manager's name and surname]
[Address]

[Date]

Dear [Manager's name]

Re: A qualitative case study exploring the role of occupational health physiotherapy from the perspectives of different stakeholders

I am a doctoral student at Middlesex University London who is planning to conduct research on the role of occupational health physiotherapy from the perspectives of different stakeholders at the [Name of NHS hospital] I am writing to inform you of the project and the requirements and to gain your support to carry it out in the occupational health department.

I am a registered physiotherapist and also a NHS employee, working full-time in occupational health at the [Name of NHS hospital]. I am therefore familiar with the NHS, and its processes. The University Health and Social Care Ethics committee has given ethical approval for the project to take place, and the research is registered with the Trust's Clinical Governance department. I will adhere to ethical principles and research governance regulations throughout my project.

The project plans to involve one-to-one interviews with occupational health clinicians and with clients that the department has referred for outpatient physiotherapy.

Should you or another member of your team have any objections to the project taking place in your department then please do not hesitate to contact me or the academic advisor. The contact details are available on the information sheets enclosed. I will telephone you after about a week of receiving this letter to discuss the requirements of the project and I thank you in advance.

Yours sincerely

_____

Mr Laran Chetty, MSc, MCSP
Registered Physiotherapist
Doctoral Student, Middlesex University

Appendix 8: Letter to workforce director at Hospital A

[Workforce Director's name and surname]
[Address]

[Date]

Dear [Director's name]

Re: A qualitative case study exploring the role of occupational health physiotherapy from the perspectives of different stakeholders

I am a doctoral student at Middlesex University London who is planning to conduct research on the role of occupational health physiotherapy from the perspectives of different stakeholders at the [Name of NHS hospital]. I am writing to inform you of the project and the requirements and to gain your support to carry it out in the workforce department.

I am a registered physiotherapist and also a NHS employee, working full-time in occupational health at the [Name of NHS hospital]. I am therefore familiar with the NHS, and its processes. The University Health and Social Care Ethics committee has given ethical approval for the project to take place, and the research is registered with the Trust's Clinical Governance department. I will adhere to ethical principles and research governance regulations throughout my project.

The project plans to involve one-to-one interviews with workforce managers that commission occupational health services.

Should you or another member of your team have any objections to the project taking place in your department then please do not hesitate to contact me or the academic advisor. The contact details are available on the information sheets enclosed. I will telephone you after about a week of receiving this letter to discuss the requirements of the project and I thank you in advance.

Yours sincerely

_____

Mr Laran Chetty, MSc, MCSP
Registered Physiotherapist
Doctoral Student, Middlesex University

Appendix 9: Letter to workforce director at Hospital B

[Workforce Director's name and surname]
[Address]

[Date]

Dear [Director's name]

Re: A qualitative case study exploring the role of occupational health physiotherapy from the perspectives of different stakeholders

I am a doctoral student at Middlesex University London who is planning to conduct research on the role of occupational health physiotherapy from the perspectives of different stakeholders at the [Name of NHS hospital]. I am writing to inform you of the project and the requirements and to gain your support to carry it out in the workforce department.

I am a registered physiotherapist and also a NHS employee, working full-time in occupational health at the [Name of NHS hospital]. I am therefore familiar with the NHS, and its processes. The University Health and Social Care Ethics committee has given ethical approval for the project to take place, and the research is registered with the Trust's Clinical Governance department. I will adhere to ethical principles and research governance regulations throughout my project.

The project plans to involve one-to-one interviews with workforce managers that commission occupational health services.

Should you or another member of your team have any objections to the project taking place in your department then please do not hesitate to contact me or the academic advisor. The contact details are available on the information sheets enclosed. I will telephone you after about a week of receiving this letter to discuss the requirements of the project and I thank you in advance.

Yours sincerely

_____

Mr Laran Chetty, MSc, MCSP
Registered Physiotherapist
Doctoral Student, Middlesex University

Appendix 10: Letter to lead outpatient physiotherapist at Hospital B

[Lead outpatient physiotherapist's name and surname]
[Address]

[Date]

Dear [Physiotherapist's name]

Re: A qualitative case study exploring the role of occupational health physiotherapy from the perspectives of different stakeholders

I am a doctoral student at Middlesex University London who is planning to conduct research on the role of occupational health physiotherapy from the perspectives of different stakeholders at the [Name of NHS hospital]. I am writing to inform you that clients that have been referred to your department by the occupational health department, and have attended at least one session of outpatient physiotherapy, may be eligible to take part in the project.

I am a registered physiotherapist and also a NHS employee, working full-time in occupational health at the [Name of NHS hospital]. I am therefore familiar with the NHS, and its processes. The University Health and Social Care Ethics committee has given ethical approval for the project to take place, and the research is registered with the Trust's Clinical Governance department. I will adhere to ethical principles and research governance regulations throughout my project.

Should you or another member of your team wish to discuss the research or if you have any objections to the project taking place then please do not hesitate to contact me or the academic advisor. The contact details are available on the information sheets enclosed.

Yours sincerely

_____

Mr Laran Chetty
Registered Physiotherapist, MSc, MCSP
Doctoral Student, Middlesex University

Appendix 11: Information sheet for occupational health clinicians at Hospital A

Title of project: **A qualitative case study exploring the role of occupational health physiotherapy from the perspectives of different stakeholders**

Introduction:

I am writing to invite you to take part in an original research project looking at your views about the role of occupational health physiotherapy. You are being invited to take part in this project because you are employed as an occupational health clinician at one of the NHS hospital under investigation. Before you decide on whether to take part or not, it is important that you understand why the research is being done and what it will involve. One member of our team will go through the information sheet with you and answer any questions you have. Please take time to read the information sheet carefully. Talk to others about the project if you wish. Ask us if there is anything that is not clear.

What is the purpose of this project?

We are interested in understanding your views about the role of physiotherapists working in occupational health departments. The information we gather from this project will hopefully lead to new ways in which occupational health physiotherapy can be provided. This project is also being completed as part of a professional doctorate degree at Middlesex University London.

What does participation involve?

Participation will involve taking part in a face-to-face interview. Your participation in this research project is completely voluntary, and you are free to withdraw from the project at any time before the completion of the data analysis, without having to give a reason, because after data analysis it would be impossible for the project team to comply. If you agree to take part in this project, we will ask you to sign and return a consent form. One member of our team will then contact you so that we can mutually agree a date and time to meet. We will arrange a private meeting room at the [Name of NHS hospital] for the interview and you will be given the details of the location. However, please let us know if you prefer to have the interview conducted in your office. It is anticipated that the interview will last for approximately 60 minutes. However, if you agreed an interview time that is during your working hours, it may be necessary for you to inform your line manager in order to get

permission to attend. Your answers will be tape recorded to ensure that we do not miss anything important by only taking written notes. However, if you do not wish to be tape recorded but are still willing to participate, then only written notes will be taken.

What are the potential risks?

It is unlikely that you will suffer any risk from this project. There is a possibility that you may experience some emotional discomfort due to the discussing of a sensitive situation, in which case we will give you the contact details of an independent support service. However, if you do mention something that makes us feel really worried about your safety or the safety of someone else, we will have to share this with an appropriate person in the NHS hospital in order to inform them of the situation and to get advice. In the unlikely event that we need to take this action we will tell you first. The kind of thing we are talking about is if you were to disclose any illegal or disciplinable professional activity. However, your general opinions will not be disclosed. Your participation in this project will not result in any expenses for you. Your comments will not be sent to your line manager, so please feel free to contribute without reservations. You do not have to answer any questions that you are uncomfortable with. If you decide not to answer some questions, this will not result in any penalty or loss to the benefits that you are otherwise normally entitled to. Your competencies as an employee of the NHS hospital will not be judged and your decision to take part or not will not impact on your contract of employment with the hospital in anyway whatsoever.

What are the potential benefits?

We cannot promise that this project will help you but the information we get might improve the way physiotherapy is provided in occupational health departments. You may even gain some benefit from having the opportunity to discuss this topic with a receptive listener.

Confidentiality:

All information received from you will be stored, analysed and reported in compliance with the Data Protection Legislation of the United Kingdom. Only the project team will have access to this information. However, it is possible that authorised auditors may require access to some parts of the collected data to check if the project is being carried out correctly. All will have a duty of confidentiality to you as a research participant and we will do our best to meet this duty. We will not use your real name when reporting any of your direct quotes so that your identity is not revealed. In addition, the name of the NHS hospital will be kept confidential by not referencing the name of the hospital throughout the project or in any publications or presentations. All information will be grouped together for any presentation or publication purposes and will not identify you individually. Before any research goes ahead it

has to be checked by a Research Ethics Committee. They make sure that the research is fair. This project has been reviewed and given a favourable opinion by the University Health and Social Care Ethics committee.

Informed consent:

It is up to you to decide whether or not you wish to take part in this project. If you decide to take part, please keep this information sheet and sign the enclosed consent form. Please return a fully completed consent form using the prepaid return envelope provided.

Thank you for taking the time to read this information sheet.

Contact details

The researcher and academic advisor will be available to answer any questions or queries you may have about any aspect of this project. Contact us if you require any further information.

RESEARCHER: Mr Laran Chetty; E-mail: LC993@live.mdx.ac.uk
ACADEMIC ADVISOR: Dr Margaret Volante; E-mail: m.volante@mdx.ac.uk

Finally, if you remain unhappy about the way you have been dealt with during the project or you have other concerns and wish to complain formally, you can contact the Chair of the Health and Social Care Ethics committee, Middlesex University London.

CHAIR: Dr Gordon Weller; E-mail: g.weller@mdx.ac.uk

Appendix 12: Interview schedule for occupational health clinicians Hospital A

Date:

Time: [interview began and ended]

Occupational group:

Years of experience:

Employment status:

Introduction

Thank you for meeting me today. *Check*: Are you still happy to be involved with the research?

I explained to the participant the purpose of the interview;

I clarified the topic under discussion;

I informed the participant of the format of the interview;

I informed the participant of the approximate length of interview;

I assured the participant of confidentiality and anonymity;

I explained the purpose of the tape recorder and asked permission to use it;

I assured the participant that they could seek clarification of questions;

I assured the participant that they could decline to answer any questions;

I informed the participant that there would be opportunity during the interview to ask questions;

I assured the participant that there were no right or wrong answers;

I informed the participant of the support available if there was any emotional distress from discussing a sensitive situation; and

I informed the participant that they could stop the interview at any time without having to give a reason.

[Adapted from Rose (1994)]

Check: Does this all sound okay? Would you like me to explain anything else, or do you have any questions?

List of questions

Can you tell me about your experiences about working with an occupational health physiotherapist? *Prompts [knowledge, behaviours and skills; differences from general physiotherapy]*

What kind of services would you expect occupational health physiotherapists to provide? *Prompts [areas of practice; clinical skills; organisational responsibilities]*

How do you think occupational health physiotherapists contribute to occupational health services? *Prompts [expert opinion; new/innovative ways of working; on team, clients, managers and outcomes]*

Probes:

Could you please tell me more about …?

I'm not quite sure I understood…Could you tell me about that some more?

I'm not certain what you mean by…Could you give me some examples?

Could you tell me more about your thinking on that?

You mentioned…Could you tell me more about that? What stands out in your mind about that?

This is what I thought I heard…Did I understand you correctly?

Can you give me an example of…?

What makes you feel that way?

You just told me about…I'd also like to know about….

[Adapted from Camino *et al* (1995)]

Post interview

Are you feeling okay about what we have talked about today? [Discuss any uncomfortable feelings and support available]

Is there anything else you want to say or add to this discussion? Do you have any questions for me?

Synthesised and confirmed significant key points in the discussion in order to ensure that the main areas of interest are covered and verified by the participant.

Inform participant that he or she can contact me, or if they prefer the academic advisor at any time if they have any questions about today's discussion or the project in general; thank participant for their contribution.

Appendix 13: Information sheet for occupational health clinicians at Hospital B

Title of project: **A qualitative case study exploring the role of occupational health physiotherapy from the perspectives of different stakeholders**

Introduction:

I am writing to invite you to take part in an original research project looking at your views about the role of occupational health physiotherapy. You are being invited to take part in this project because you are employed as an occupational health clinician at one of the NHS hospital under investigation. Before you decide on whether to take part or not, it is important that you understand why the research is being done and what it will involve. One member of our team will go through the information sheet with you and answer any questions you have. Please take time to read the information sheet carefully. Talk to others about the project if you wish. Ask us if there is anything that is not clear.

What is the purpose of this project?

We are interested in understanding your views about the role of physiotherapists working in occupational health departments. The information we gather from this project will hopefully lead to new ways in which occupational health physiotherapy can be provided. This project is also being completed as part of a professional doctorate degree at Middlesex University London.

What does participation involve?

Participation will involve taking part in a face-to-face interview. Your participation in this research project is completely voluntary, and you are free to withdraw from the project at any time before the completion of the data analysis, without having to give a reason, because after data analysis it would be impossible for the project team to comply. If you agree to take part in this project, we will ask you to sign and return a consent form. One member of our team will then contact you so that we can mutually agree a date and time to meet. We will arrange a private meeting room at the [Name of NHS hospital] for the interview and you will be given the details of the location. However, please let us know if you prefer to have the interview conducted in your office. It is anticipated that the interview will last for approximately 60 minutes. However, if you agreed an interview time that is during your working hours, it may be necessary for you to inform your line manager in order to get

permission to attend. Your answers will be tape recorded to ensure that we do not miss anything important by only taking written notes. However, if you do not wish to be tape recorded but are still willing to participate, then only written notes will be taken.

What are the potential risks?

It is unlikely that you will suffer any risk from this project. There is a possibility that you may experience some emotional discomfort due to the discussing of a sensitive situation, in which case we will give you the contact details of an independent support service. However, if you do mention something that makes us feel really worried about your safety or the safety of someone else, we will have to share this with an appropriate person in the NHS hospital in order to inform them of the situation and to get advice. In the unlikely event that we need to take this action we will tell you first. The kind of thing we are talking about is if you were to disclose any illegal or disciplinable professional activity. However, your general opinions will not be disclosed. Your participation in this project will not result in any expenses for you. Your comments will not be sent to your line manager, so please feel free to contribute without reservations. You do not have to answer any questions that you are uncomfortable with. If you decide not to answer some questions, this will not result in any penalty or loss to the benefits that you are otherwise normally entitled to. Your competencies as an employee of the NHS hospital will not be judged and your decision to take part or not will not impact on your contract of employment with the hospital in anyway whatsoever.

What are the potential benefits?

We cannot promise that this project will help you but the information we get might improve the way physiotherapy is provided in occupational health departments. You may even gain some benefit from having the opportunity to discuss this topic with a receptive listener.

Confidentiality:

All information received from you will be stored, analysed and reported in compliance with the Data Protection Legislation of the United Kingdom. Only the project team will have access to this information. However, it is possible that authorised auditors may require access to some parts of the collected data to check if the project is being carried out correctly. All will have a duty of confidentiality to you as a research participant and we will do our best to meet this duty. We will not use your real name when reporting any of your direct quotes so that your identity is not revealed. In addition, the name of the NHS hospital will be kept confidential by not referencing the name of the NHS hospital throughout the project or in any publications or presentations. All information will be grouped together for any presentation or publication purposes and will not identify you individually. Before any

research goes ahead it has to be checked by a Research Ethics Committee. They make sure that the research is fair. This project has been reviewed and given a favourable opinion by the University Health and Social Care Ethics committee.

Informed consent:

It is up to you to decide whether or not you wish to take part in this project. If you decide to take part, please keep this information sheet and sign the enclosed consent form. Please return a fully completed consent form using the prepaid return envelope provided.

Thank you for taking the time to read this information sheet.

Contact details

The researcher and academic advisor will be available to answer any questions or queries you may have about any aspect of this project. Contact us if you require any further information.

RESEARCHER: Mr Laran Chetty; E-mail: LC993@live.mdx.ac.uk
ACADEMIC ADVISOR: Dr Margaret Volante; E-mail: m.volante@mdx.ac.uk

Finally, if you remain unhappy about the way you have been dealt with during the project or you have other concerns and wish to complain formally, you can contact the Chair of the Health and Social Care Ethics committee, Middlesex University London.

CHAIR: Dr Gordon Weller; E-mail: g.weller@mdx.ac.uk

Appendix 14: Interview schedule for occupational health clinicians Hospital B

Date:

Time: [interview began and ended]

Occupational group:

Years of experience:

Employment status:

Introduction

Thank you for meeting me today. *Check*: Are you still happy to be involved with the research?

I explained to the participant the purpose of the interview;

I clarified the topic under discussion;

I informed the participant of the format of the interview;

I informed the participant of the approximate length of interview;

I assured the participant of confidentiality and anonymity;

I explained the purpose of the tape recorder and asked permission to use it;

I assured the participant that they could seek clarification of questions;

I assured the participant that they could decline to answer any questions;

I informed the participant that there would be opportunity during the interview to ask questions;

I assured the participant that there were no right or wrong answers;

I informed the participant of the support available if there was any emotional distress from discussing a sensitive situation; and

I informed the participant that they could stop the interview at any time without having to give a reason.

[Adapted from Rose (1994)]

Check: Does this all sound okay? Would you like me to explain anything else, or do you have any questions?

List of questions

What are your views about adding physiotherapists to occupational health departments? *Prompts [challenges and barriers; benefits; differences from general physiotherapy]*

What kind of services would you expect physiotherapists in occupational health departments to provide? *Prompts [areas of practice; clinical skills; organisational responsibilities]*

How do you think physiotherapists working in occupational health departments could contribute to occupational health services? *Prompts [expert opinion; new/innovative ways of working; on team, clients, managers and outcomes]*

Probes:

Could you please tell me more about …?

I'm not quite sure I understood…Could you tell me about that some more?

I'm not certain what you mean by…Could you give me some examples?

Could you tell me more about your thinking on that?

You mentioned…Could you tell me more about that? What stands out in your mind about that?

This is what I thought I heard…Did I understand you correctly?

Can you give me an example of…?

What makes you feel that way?

You just told me about…I'd also like to know about….

[Adapted from Camino *et al* (1995)]

Post interview

Are you feeling okay about what we have talked about today? [Discuss any uncomfortable feelings and support available]

Is there anything else you want to say or add to this discussion? Do you have any questions for me?

Synthesised and confirmed significant key points in the discussion in order to ensure that the main areas of interest are covered and verified by the participant.

Inform participant that he or she can contact me, or if they prefer the academic advisor at any time if they have any questions about today's discussion or the project in general; thank participant for their contribution.

Appendix 15: Information sheet for workforce managers at Hospital A

Title of project: **A qualitative case study exploring the role of occupational health physiotherapy from the perspectives of different stakeholders**

Introduction:

I am writing to invite you to take part in an original research project looking at your views about the role of occupational health physiotherapy. You are being invited to take part in this project because you are employed as a workforce manager at one of the NHS hospital under investigation. Before you decide on whether to take part or not, it is important that you understand why the research is being done and what it will involve. One member of our team will go through the information sheet with you and answer any questions you have. Please take time to read the information sheet carefully. Talk to others about the project if you wish. Ask us if there is anything that is not clear.

What is the purpose of this project?

We are interested in understanding your views about the role of physiotherapists working in occupational health departments. The information we gather from this project will hopefully lead to new ways in which occupational health physiotherapy can be provided. This project is also being completed as part of a professional doctorate degree at Middlesex University London.

What does participation involve?

Participation will involve taking part in a face-to-face interview. Your participation in this research project is completely voluntary, and you are free to withdraw from the project at any time before the completion of the data analysis, without having to give a reason, because after data analysis it would be impossible for the project team to comply. If you agree to take part in this project, we will ask you to sign and return a consent form. One member of our team will then contact you so that we can mutually agree a date and time to meet. We will arrange a private meeting room at the [Name of NHS hospital] for the interview and you will be given the details of the location. However, please let us know if you prefer to have the interview conducted in your office. It is anticipated that the interview will last for approximately 60 minutes. However, if you agreed an interview time that is during your working hours, it may be necessary for you to inform your line manager in order to get

permission to attend. Your answers will be tape recorded to ensure that we do not miss anything important by only taking written notes. However, if you do not wish to be tape recorded but are still willing to participate, then only written notes will be taken.

What are the potential risks?

It is unlikely that you will suffer any risk from this project. There is a possibility that you may experience some emotional discomfort due to the discussing of a sensitive situation, in which case we will give you the contact details of an independent support service. However, if you do mention something that makes us feel really worried about your safety or the safety of someone else, we will have to share this with an appropriate person in the NHS hospital to inform them of the situation and to get advice. In the unlikely event that we need to take this action we will tell you first. The kind of thing we are talking about is if you were to disclose any illegal or disciplinable professional activity. However, your general opinions will not be disclosed. Your participation in this project will not result in any expenses for you. Your comments will not be sent to your line manager, so please feel free to contribute without reservations. You do not have to answer any questions that you are uncomfortable with. If you decide not to answer some questions, this will not result in any penalty or loss to the benefits that you are otherwise normally entitled to. Your competencies as an employee of the NHS hospital will not be judged and your decision to take part or not will not impact on your contract of employment with the hospital in anyway whatsoever.

What are the potential benefits?

We cannot promise that this project will help you but the information we get might improve the way physiotherapy is provided in occupational health departments. You may even gain some benefit from having the opportunity to discuss this topic with a receptive listener.

Confidentiality:

All information received from you will be stored, analysed and reported in compliance with the Data Protection Legislation of the United Kingdom. Only the project team will have access to this information. However, it is possible that authorised auditors may require access to some parts of the collected data to check if the project is being carried out correctly. All will have a duty of confidentiality to you as a research participant and we will do our best to meet this duty. We will not use your real name when reporting any of your direct quotes so that your identity is not revealed. In addition, the name of the NHS hospital will be kept confidential by not referencing the name of the hospital throughout the project or in any publications or presentations. All information will be grouped together for any presentation or publication purposes and will not identify you individually. Before any research goes ahead it

has to be checked by a Research Ethics Committee. They make sure that the research is fair. This study has been reviewed and given a favourable opinion by the University Health and Social Care Ethics committee.

Informed consent:

It is up to you to decide whether or not you wish to take part in this project. If you decide to take part, please keep this information sheet and sign the enclosed consent form. Please return a fully completed consent form using the prepaid return envelope provided.

Thank you for taking the time to read this information sheet.

Contact details

The researcher and academic advisor will be available to answer any questions or queries you may have about any aspect of this project. Contact us if you require any further information.

RESEARCHER: Mr Laran Chetty; E-mail: LC993@live.mdx.ac.uk
ACADEMIC ADVISOR: Dr Margaret Volante; E-mail: m.volante@mdx.ac.uk

Finally, if you remain unhappy about the way you have been dealt with during the project or you have other concerns and wish to complain formally, you can contact the Chair of the Health and Social Care Ethics committee, Middlesex University London.

CHAIR: Dr Gordon Weller; E-mail: g.weller@mdx.ac.uk

Appendix 16: Interview schedule for workforce managers at Hospital A

Date:

Time: [interview began and ended]

Occupational group:

Years of experience: [commissioning occupational health services]

Employment status:

Introduction

Thank you for meeting me today. *Check*: Are you still happy to be involved with the research?

I explained to the participant the purpose of the interview;

I clarified the topic under discussion;

I informed the participant of the format of the interview;

I informed the participant of the approximate length of interview;

I assured the participant of confidentiality and anonymity;

I explained the purpose of the tape recorder and asked permission to use it;

I assured the participant that they could seek clarification of questions;

I assured the participant that they could decline to answer any questions;

I informed the participant that there would be opportunity during the interview to ask questions;

I assured the participant that there were no right or wrong answers;

I informed the participant of the support available if there was any emotional distress from discussing a sensitive situation; and

I informed the participant that they could stop the interview at any time without having to give a reason.

[Adapted from Rose (1994)]

Check: Does this all sound okay? Would you like me to explain anything else, or do you have any questions?

List of questions

Why do you think an occupational health physiotherapy post should be funded? *Prompts [knowledge, behaviours and skills; differences from general physiotherapy practice]*

What kind of services do you expect occupational health physiotherapists to provide? *Prompts [areas of practice; clinical skills; organisational responsibilities]*

How do you think occupational health physiotherapists contribute to occupational health services? *Prompts [expert opinion; new/innovative ways of working; on team, clients, managers and outcomes]*

Probes:

Could you please tell me more about …?

I'm not quite sure I understood…Could you tell me about that some more?

I'm not certain what you mean by…Could you give me some examples?

Could you tell me more about your thinking on that?

You mentioned…Could you tell me more about that? What stands out in your mind about that?

This is what I thought I heard…Did I understand you correctly?

Can you give me an example of…?

What makes you feel that way?

You just told me about…I'd also like to know about….

[Adapted from Camino *et al* (1995)]

Post interview

Are you feeling okay about what we have talked about today? [Discuss any uncomfortable feelings and support available]

Is there anything else you want to say or add to this discussion? Do you have any questions for me?

Synthesised and confirmed significant key points in the discussion in order to ensure that the main areas of interest are covered and verified by the participant.

Inform participant that he or she can contact me, or if they prefer the academic advisor at any time if they have any questions about today's discussion or the project in general; thank participant for their contribution.

Appendix 17: Information sheet for workforce managers at Hospital B

Title of project: **A qualitative case study exploring the role of occupational health physiotherapy from the perspectives of different stakeholders**

Introduction:

I am writing to invite you to take part in an original research project looking at your views about the role of occupational health physiotherapy. You are being invited to take part in this project because you are employed as a workforce manager at one of the NHS hospital under investigation. Before you decide on whether to take part or not, it is important that you understand why the research is being done and what it will involve. One member of our team will go through the information sheet with you and answer any questions you have. Please take time to read the information sheet carefully. Talk to others about the project if you wish. Ask us if there is anything that is not clear.

What is the purpose of this project?

We are interested in understanding your views about the role of physiotherapists in occupational health departments. The information we gather from this project will hopefully lead to new ways in which occupational health physiotherapy can be provided. This project is also being completed as part of a professional doctorate degree at Middlesex University London.

What does participation involve?

Participation will involve taking part in a face-to-face interview. Your participation in this research project is completely voluntary, and you are free to withdraw from the project at any time before the completion of the data analysis, without having to give a reason, because after data analysis it would be impossible for the project team to comply. If you agree to take part in this project, we will ask you to sign and return a consent form. One member of our team will then contact you so that we can mutually agree a date and time to meet. We will arrange a private meeting room at the [Name of NHS hospital] for the interview and you will be given the details of the location. However, please let us know if you prefer to have the interview conducted in your office. It is anticipated that the interview will last for approximately 60 minutes. However, if you agreed an interview time that is during your

working hours, it may be necessary for you to inform your line manager in order to get permission to attend. Your answers will be tape recorded to ensure that we do not miss anything important by only taking written notes. However, if you do not wish to be tape recorded but are still willing to participate, then only written notes will be taken.

What are the potential risks?

It is unlikely that you will suffer any risk from this project. There is a possibility that you may experience some emotional discomfort due to the discussing of a sensitive situation, in which case we will give you the contact details of an independent support service. However, if you do mention something that makes us feel really worried about your safety or the safety of someone else, we will have to share this with an appropriate person in the NHS hospital in order to inform them of the situation and to get advice. In the unlikely event that we need to take this action we will tell you first. The kind of thing we are talking about is if you were to disclose any illegal or disciplinable professional activity. However, your general opinions will not be disclosed. Your participation in this project will not result in any expenses for you. Your comments will not be sent to your line manager, so please feel free to contribute without reservations. You do not have to answer any questions that you are uncomfortable with. If you decide not to answer some questions, this will not result in any penalty or loss to the benefits that you are otherwise normally entitled to. Your competencies as an employee of the NHS hospital will not be judged and your decision to take part or not will not impact on your contract of employment with the hospital in anyway whatsoever.

What are the potential benefits?

We cannot promise that this project will help you but the information we get might improve the way physiotherapy is provided in occupational health departments. You may even gain some benefit from having the opportunity to discuss this topic with a receptive listener.

Confidentiality:

All information received from you will be stored, analysed and reported in compliance with the Data Protection Legislation of the United Kingdom. Only the project team will have access to this information. However, it is possible that authorised auditors may require access to some parts of the collected data to check if the project is being carried out correctly. All will have a duty of confidentiality to you as a research participant and we will do our best to meet this duty. We will not use your real name when reporting any of your direct quotes so that your identity is not revealed. In addition, the name of the NHS hospital will be kept confidential by not referencing the name of the hospital throughout the project or in any publications or presentations. All information will be grouped together for any presentation or

publication purposes and will not identify you individually. Before any research goes ahead it has to be checked by a Research Ethics Committee. They make sure that the research is fair. This project has been reviewed and given a favourable opinion by the University Health and Social Care Ethics committee.

Informed consent:

It is up to you to decide whether or not you wish to take part in this project. If you decide to take part, please keep this information sheet and sign the enclosed consent form. Please return a fully completed consent form using the prepaid return envelope provided.

Thank you for taking the time to read this information sheet.

Contact details

The researcher and academic advisor will be available to answer any questions or queries you may have about any aspect of this project. Contact us if you require any further information.

RESEARCHER: Mr Laran Chetty; E-mail: LC993@live.mdx.ac.uk
ACADEMIC ADVISOR: Dr Margaret Volante; E-mail: m.volante@mdx.ac.uk

Finally, if you remain unhappy about the way you have been dealt with during the project or you have other concerns and wish to complain formally, you can contact the Chair of the Health and Social Care Ethics committee, Middlesex University London.

CHAIR: Dr Gordon Weller; E-mail: g.weller@mdx.ac.uk

Appendix 18: Interview schedule for workforce managers at Hospital B

Date:

Time: [interview began and ended]

Occupational group:

Years of experience: [commissioning occupational health services]

Employment status:

Introduction

Thank you for meeting me today. *Check*: Are you still happy to be involved with the research?

I explained to the participant the purpose of the interview;

I clarified the topic under discussion;

I informed the participant of the format of the interview;

I informed the participant of the approximate length of interview;

I assured the participant of confidentiality and anonymity;

I explained the purpose of the tape recorder and asked permission to use it;

I assured the participant that they could seek clarification of questions;

I assured the participant that they could decline to answer any questions;

I informed the participant that there would be opportunity during the interview to ask questions;

I assured the participant that there were no right or wrong answers;

I informed the participant of the support available if there was any emotional distress from discussing a sensitive situation; and

I informed the participant that they could stop the interview at any time without having to give a reason.

[Adapted from Rose (1994)]

Check: Does this all sound okay? Would you like me to explain anything else, or do you have any questions?

List of questions

What are your views about funding physiotherapy posts in occupational health departments? *Prompts [challenges and barriers; benefits; differences from general physiotherapy practice]*

What kind of services would you expect physiotherapists in occupational health departments to provide? *Prompts [areas of practice; clinical skills; organisational responsibilities]*

How do you think physiotherapists working in occupational health departments could contribute to occupational health services? *Prompts [expert opinion; new/innovative ways of working; on team, clients, managers and outcomes]*

Probes:

Could you please tell me more about …?

I'm not quite sure I understood…Could you tell me about that some more?

I'm not certain what you mean by…Could you give me some examples?

Could you tell me more about your thinking on that?

You mentioned…Could you tell me more about that? What stands out in your mind about that?

This is what I thought I heard…Did I understand you correctly?

Can you give me an example of…?

What makes you feel that way?

You just told me about…I'd also like to know about….

[Adapted from Camino *et al* (1995)]

Post interview

Are you feeling okay about what we have talked about today? [Discuss any uncomfortable feelings and support available]

Is there anything else you want to say or add to this discussion? Do you have any questions for me?

Synthesised and confirmed significant key points in the discussion in order to ensure that the main areas of interest are covered and verified by the participant.

Inform participant that he or she can contact me, or if they prefer the academic advisor at any time if they have any questions about today's discussion or the project in general; thank participant for their contribution.

Appendix 19: Information sheet for clients at Hospital A

Title of project: **A qualitative case study exploring the role of occupational health physiotherapy from the perspectives of different stakeholders**

Introduction:

I am writing to invite you to take part in an original research project looking at your views about the role of occupational health physiotherapy. You are being invited to take part in this project because you have attended the occupational health physiotherapy clinic within the last six months. Before you decide on whether to take part or not, it is important that you understand why the research is being done and what it will involve. One member of our team will go through the information sheet with you and answer any questions you have. Please take time to read the information sheet carefully. Talk to others about the project if you wish. Ask us if there is anything that is not clear.

What is the purpose of this project?

We are interested in understanding your views about the role of physiotherapists in occupational health departments. The information we gather from this project will hopefully lead to new ways in which occupational health physiotherapy can be provided. This project is also being completed as part of a professional doctorate degree at Middlesex University London.

What does participation involve?

Participation will involve taking part in a face-to-face interview. To be able to take part in this project you must have attended at least one session of occupational health physiotherapy within the last six months. The interview will be conducted using the English language. If you feel you might not adequately understand written and verbal information given in English, then it is possible that you might not be able to take part in this project. If you have made a formal complaint against the NHS hospital that is currently being investigated or you are being formally investigated by the NHS hospital, then it is possible that you might not be able to take part in this project. Your participation in this research project is completely voluntary, and you are free to withdraw from the project at any time before the completion of the data analysis, without having to give a reason, because after data analysis it would be impossible for the project team to comply. If you agree to take part in this project, we will ask you to sign

and return a consent form. One member of our team will then contact you so that we can mutually agree a date and time to meet. We will arrange a private meeting room at the [Name of NHS hospital] for the interview and you will be given the details of the location. However, please let us know if you prefer to have the interview conducted in your office. It is anticipated that the interview will last for approximately 60 minutes. However, if you agreed an interview time that is during your working hours, it may be necessary for you to inform your line manager in order to get permission to attend. Your answers will be tape recorded to ensure that we do not miss anything important by only taking written notes. However, if you do not wish to be tape recorded but are still willing to participate, then only written notes will be taken.

What are the potential risks?

It is unlikely that you will suffer any risk from this project. There is a possibility that you may experience some emotional discomfort due to the discussing of a sensitive situation, in which case we will give you the contact details of an independent support service. However, if you do mention something that makes us feel really worried about your safety or the safety of someone else, we will have to share this with an appropriate person in the NHS hospital in order to inform them of the situation and to get advice. In the unlikely event that we need to take this action we will tell you first. The kind of thing we are talking about is if you were to disclose any illegal or disciplinable professional activity. However, your general opinions will not be disclosed. Your participation in this project will not result in any expenses for you. Your comments will not be linked to your health records and will not be sent to your line manager, so please feel free to contribute without reservations. You do not have to answer any questions that you are uncomfortable with. If you decide not to answer some questions or you decide to stop the interview, this will not affect the care you receive.

What are the potential benefits?

We cannot promise that this project will help you but the information we get might improve the way physiotherapy is provided in occupational health departments. You may even gain some benefit from having the opportunity to discuss this topic with a receptive listener.

Confidentiality:

All information received from you will be stored, analysed and reported in compliance with the Data Protection Legislation of the United Kingdom. Only the project team will have access to this information. However, it is possible that authorised auditors may require access to some parts of the collected data to check if the project is being carried out correctly. All will have a duty of confidentiality to you as a research participant and we will do

our best to meet this duty. We will not use your real name when reporting any of your direct quotes so that your identity is not revealed. In addition, the name of the NHS hospital will be kept confidential by not referencing the name of the hospital throughout the project or in any publications or presentations. All information will be grouped together for any presentation or publication purposes and will not identify you individually. Before any research goes ahead it has to be checked by a Research Ethics Committee. They make sure that the research is fair. This project has been reviewed and given a favourable opinion by the University Health and Social Care Ethics committee.

Informed consent:

It is up to you to decide whether or not you wish to take part in this project. If you decide to take part, please keep this information sheet and sign the enclosed consent form. Please return a fully completed consent form using the prepaid return envelope provided.

Thank you for taking the time to read this information sheet.

Contact details

The researcher and academic advisor will be available to answer any questions or queries you may have about any aspects of this study. Contact us if you require any further information.

RESEARCHER: Mr Laran Chetty; E-mail: LC993@live.mdx.ac.uk
ACADEMIC ADVISOR: Dr Margaret Volante; E-mail: m.volante@mdx.ac.uk

Finally, if you remain unhappy about the way you have been dealt with during the project or you have other concerns and wish to complain formally, you can contact the Chair of the Health and Social Care Ethics committee, Middlesex University London.

CHAIR: Dr Gordon Weller; E-mail: g.weller@mdx.ac.uk

Appendix 20: Interview schedule for clients at Hospital A

Date:

Time: [interview began and ended]

Introduction

Thank you for meeting me today. *Check*: Are you still happy to be involved with the research?

I explained to the participant the purpose of the interview;

I clarified the topic under discussion;

I informed the participant of the format of the interview;

I informed the participant of the approximate length of interview;

I assured the participant of confidentiality and anonymity;

I explained the purpose of the tape recorder and asked permission to use it;

I assured the participant that they could seek clarification of questions;

I assured the participant that they could decline to answer any questions;

I informed the participant that there would be opportunity during the interview to ask questions;

I assured the participant that there were no right or wrong answers;

I informed the participant of the support available if there was any emotional distress from discussing a sensitive situation; and

I informed the participant that they could stop the interview at any time without having to give a reason.

[Adapted from Rose (1994)]

Check: Does this all sound okay? Would you like me to explain anything else, or do you have any questions?

List of questions

Can you tell me about your experiences with the occupational health physiotherapist following your appointment? *Prompts [knowledge, behaviours and skills; differences from outpatient physiotherapy]*

What kind of services do you expect occupational health physiotherapists to provide? *Prompts [areas of practice; clinical skills; organisational responsibilities]*

How do you think occupational health physiotherapists contribute to occupational health services? *Prompts [expert opinion; new/innovative ways of working; on team, clients, managers and outcomes]*

Probes:

Could you please tell me more about …?

I'm not quite sure I understood…Could you tell me about that some more?

I'm not certain what you mean by…Could you give me some examples?

Could you tell me more about your thinking on that?

You mentioned…Could you tell me more about that? What stands out in your mind about that?

This is what I thought I heard…Did I understand you correctly?

Can you give me an example of…?

What makes you feel that way?

You just told me about…I'd also like to know about….

[Adapted from Camino *et al* (1995)]

Post interview

Are you feeling okay about what we have talked about today? [Discuss any uncomfortable feelings and support available]

Is there anything else you want to say or add to this discussion? Do you have any questions for me?

Synthesised and confirmed significant key points in the discussion in order to ensure that the main areas of interest are covered and verified by the participant.

Inform participant that he or she can contact me, or if they prefer the academic advisor at any time if they have any questions about today's discussion or the project in general; thank participant for their contribution.

Appendix 21: Information sheet for clients at Hospital B

Title of project: **A qualitative case study exploring the role of occupational health physiotherapy from the perspectives of different stakeholders**

Introduction:

I am writing to invite you to take part in an original research project looking at your views about the role of occupational health physiotherapy. You are being invited to take part in this project because you have attended outpatient physiotherapy following a referral from the occupational health department within the last six months. Before you decide on whether to take part or not, it is important that you understand why the research is being done and what it will involve. One member of our team will go through the information sheet with you and answer any questions you have. Please take time to read the information sheet carefully. Talk to others about the project if you wish. Ask us if there is anything that is not clear.

What is the purpose of this project?

We are interested in understanding your views about the role of physiotherapists in occupational health departments. The information we gather from this project will hopefully lead to new ways in which occupational health physiotherapy can be provided. This project is also being completed as part of a professional doctorate degree at Middlesex University London.

What does participation involve?

Participation will involve taking part in a face-to-face interview. To be able to take part in this project you must have attended at least one session of outpatient physiotherapy within the last six months. The interview will be conducted using the English language. If you feel you might not adequately understand written and verbal information given in English, then it is possible that you might not be able to take part in this project. If you have made a formal complaint against the NHS hospital that is currently being investigated or you are being formally investigated by the NHS hospital, then it is possible that you might not be able to take part in this project. Your participation in this research project is completely voluntary, and you are free to withdraw from the project at any time before the completion of the data analysis, without having to give a reason, because after data analysis it would be impossible for the project team to comply. If you agree to take part in this project, we will ask you to sign

and return a consent form. One member of our team will then contact you so that we can mutually agree a date and time to meet. We will arrange a private meeting room at the [Name of NHS hospital] for the interview and you will be given the details of the location. However, please let us know if you prefer to have the interview conducted in your office. It is anticipated that the interview will last for approximately 60 minutes. However, if you agreed an interview time that is during your working hours, it may be necessary for you to inform your line manager in order to get permission to attend. Your answers will be tape recorded to ensure that we do not miss anything important by only taking written notes. However, if you do not wish to be tape recorded but are still willing to participate, then only written notes will be taken.

What are the potential risks?

It is unlikely that you will suffer any risk from this project. There is a possibility that you may experience some emotional discomfort due to the discussing of a sensitive situation, in which case we will give you the contact details of an independent support service. However, if you do mention something that makes us feel really worried about your safety or the safety of someone else, we will have to share this with an appropriate person in the NHS hospital in order to inform them of the situation and to get advice. In the unlikely event that we need to take this action we will tell you first. The kind of thing we are talking about is if you were to disclose any illegal or disciplinable professional activity. However, your general opinions will not be disclosed. Your participation in this project will not result in any expenses for you. Your comments will not be linked to your health records and will not be sent to your line manager, so please feel free to contribute without reservations. You do not have to answer any questions that you are uncomfortable with. If you decide not to answer some questions or you decide to stop the interview, this will not affect the care you receive.

What are the potential benefits?

We cannot promise that this project will help you but the information we get might improve the way physiotherapy is provided in occupational health departments. You may even gain some benefit from having the opportunity to discuss this topic with a receptive listener.

Confidentiality:

All information received from you will be stored, analysed and reported in compliance with the Data Protection Legislation of the United Kingdom. Only the project team will have access to this information. However, it is possible that authorised auditors may require access to some parts of the collected data to check if the project is being carried out correctly. All will have a duty of confidentiality to you as a research participant and we will do

our best to meet this duty. We will not use your real name when reporting any of your direct quotes so that your identity is not revealed. In addition, the name of the NHS hospital will be kept confidential by not referencing the name of the hospital throughout the project or in any publications or presentations. All information will be grouped together for any presentation or publication purposes and will not identify you individually. Before any research goes ahead it has to be checked by a Research Ethics Committee. They make sure that the research is fair. This project has been reviewed and given a favourable opinion by the University Health and Social Care Ethics committee.

Informed consent:

It is up to you to decide whether or not you wish to take part in this project. If you decide to take part, please keep this information sheet and sign the enclosed consent form. Please return a fully completed consent form using the prepaid return envelope provided.

Thank you for taking the time to read this information sheet.

Contact details

The researcher and academic advisor will be available to answer any questions or queries you may have about any aspect of this project. Contact us if you require any further information.

RESEARCHER: Mr Laran Chetty; E-mail: LC993@live.mdx.ac.uk
ACADEMIC ADVISOR: Dr Margaret Volante; E-mail: m.volante@mdx.ac.uk

Finally, if you remain unhappy about the way you have been dealt with during the project or you have other concerns and wish to complain formally, you can contact the Chair of the Health and Social Care Ethics committee, Middlesex University London.

CHAIR: Dr Gordon Weller; E-mail: g.weller@mdx.ac.uk

Appendix 22: Interview schedule for clients at Hospital B

Date:

Time: [interview began and ended]

Introduction

Thank you for meeting me today. *Check*: Are you still happy to be involved with the research?

I explained to the participant the purpose of the interview;

I clarified the topic under discussion;

I informed the participant of the format of the interview;

I informed the participant of the approximate length of interview;

I assured the participant of confidentiality and anonymity;

I explained the purpose of the tape recorder and asked permission to use it;

I assured the participant that they could seek clarification of questions;

I assured the participant that they could decline to answer any questions;

I informed the participant that there would be opportunity during the interview to ask questions;

I assured the participant that there were no right or wrong answers;

I informed the participant of the support available if there was any emotional distress from discussing a sensitive situation; and

I informed the participant that they could stop the interview at any time without having to give a reason.

[Adapted from Rose (1994)]

Check: Does this all sound okay? Would you like me to explain anything else, or do you have any questions?

List of questions

Can you tell me about your experiences with the outpatient physiotherapist following your appointment? *Prompts [challenges and barriers; benefits]*

What kind of services do you expect an outpatient physiotherapist to provide compared to an occupational health physiotherapist? *Prompts [areas of practice; clinical skills; organisational responsibilities]*

How do you think occupational health physiotherapists could contribute to occupational health services compared to outpatient physiotherapists? *Prompts [waiting times; expert opinion; new/innovative ways of working; on team, clients, managers and outcomes]*

Probes:

Could you please tell me more about …?

I'm not quite sure I understood…Could you tell me about that some more?

I'm not certain what you mean by…Could you give me some examples?

Could you tell me more about your thinking on that?

You mentioned…Could you tell me more about that? What stands out in your mind about that?

This is what I thought I heard…Did I understand you correctly?

Can you give me an example of…?

What makes you feel that way?

You just told me about…I'd also like to know about….

[Adapted from Camino *et al* (1995)]

Post interview

Are you feeling okay about what we have talked about today? [Discuss any uncomfortable feelings and support available]

Is there anything else you want to say or add to this discussion? Do you have any questions for me?

Synthesised and confirmed significant key points in the discussion in order to ensure that the main areas of interest are covered and verified by the participant.

Inform participant that he or she can contact me, or if they prefer the academic advisor at any time if they have any questions about today's discussion or the project in general; thank participant for their contribution.

Appendix 23: Written consent form

Participant identification number for this project:

Name of Researcher:

Title of project: A qualitative case study exploring the role of occupational health physiotherapy from the perspectives of different stakeholders

Please initial the boxes

- I have read the information sheet **[Date] [Version]** for the above project. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily..... ☐
- I understand that my participation is voluntary and that I am free to withdraw at any time before the completion of the data analysis and not have my information included, without having to give a reason, because after data analysis it would be impossible for the project team to comply, and without my standard care or legal rights being affected…….…… ☐
- I understand that the data collected during the project, may be looked at by authorised auditors, where it is relevant to my taking part in this research. I give permission for these individuals to have access to my data..... ☐
- I understand that my interview may be taped and subsequently transcribed…… ☐
- I agree to take part in the above project..... ☐

Name of researcher	Date	Signature
Name of researcher	Date	Signature

When completed: 1 copy for participant; 1 copy for researcher

Appendix 24: Client contact details form for Hospital A

Client contact details for interview

I am willing to be contacted by a member of the research team in order to discuss arranging an interview about my views about occupational health physiotherapy. I can confirm that I have attended at least one session of occupational health physiotherapy.

Signature _____Date_____

Name _____

Address

_____

_____

_____

_____

Telephone number _____ Best time to call during the day _____

Appendix 25: Client contact details form at Hospital B

Client contact details for interview

I am willing to be contacted by a member of the research team in order to discuss arranging an interview about my views about physiotherapy following a referral from occupational health. I can confirm that I have attended at least one session of outpatient physiotherapy.

Signature _____Date_____

Name _____

Address

_____

_____

_____

_____

Telephone number _____ Best time to call during the day _____

Appendix 26: Poster for the recruitment of clients at Hospital A

OCCUPATIONAL HEALTH PHYSIOTHERAPY RESEARCH PROJECT

You are invited to participate in a research project exploring the role of occupational health physiotherapy.

- Have you attend at least one session of occupational health physiotherapy, in the last six months?

If you answered YES to this question, you may be eligible to participate in a research project.

The purpose of this project is to understand your views about the role of physiotherapists in occupational health departments. You will have the opportunity to discuss this issue with a receptive listener.

You will be ineligible to take part if you are taking any formal action or are being formally investigated by the [Name of NHS hospital].

This study is being conducted as part of a doctoral study at Middlesex University London.

If you are interested in participating and would like more information about participating, please contact:
Mr Laran Chetty at LC993@live.mdx.ac.uk or
Dr Margaret Volante at m.volante@mdx.ac.uk (Academic Advisor)

NB: This project has received a favourable ethical opinion from Middlesex University London Health and Social Care Ethics Committee.

Appendix 27: Poster for the recruitment of clients at Hospital B

OCCUPATIONAL HEALTH PHYSIOTHERAPY RESEARCH PROJECT

You are invited to participate in a research project exploring the role of occupational health physiotherapy.

- Have you attend at least one session of physiotherapy in the last six months, following a referral by occupational health?

If you answered YES to these questions, you may be eligible to participate in a research project.

The purpose of this project is to understand your views about the role of physiotherapists in occupational health departments. You will have the opportunity to discuss this issue with a receptive listener.

You will be ineligible to take part if you are taking any formal action or are being formally investigated by the [Name of NHS hospital].

This study is being conducted as part of a doctoral study at Middlesex University London.

If you are interested in participating and would like more information about participating, please contact:
Mr Laran Chetty at LC993@live.mdx.ac.uk or
Dr Margaret Volante at m.volante@mdx.ac.uk (Academic Advisor)

NB: This project has received a favourable ethical opinion from the Middlesex University London Health and Social Care Ethics Committee.

Appendix 28: Examples of the data analysis process

In the example below we see the initial theme 'balancing clinical and organisational needs' emerging from one stakeholder group (that is, occupational health clinicians). This is an example of only one stakeholder group discussing this issue.

Interview transcripts

*"Occupational health physios need to work in such a way that they can do their **clinical work** and understand what the **organisation wants and needs.** Too often, physios adapt a primary care contact role right from the start, and this does not always get the backing of the doctors. They need to work in consultation with the team and understand the **pressures of the organisation.**"* (Case 1, Occupational Health Doctor)

*"Physios in occupational health must have a certain level of skills and competency because the work also involves getting staff back to work. Occupational health physiotherapists have a much higher level of autonomy than most of the other hospital-based roles and are required to show **clinical proficiency** and independent working. There needs to be an understanding from the beginning **how the system works** and be able to help staff get back [to work] and recommend to the referring managers how to support them. Physios [therapists] can't [cannot] only treat the pain."* (Case 1, Occupational Health Nurse 3)

*"A process could be put in place so that the physiotherapist can work with the other professions in the team, and can **screen their cases** and decide which ones are suitable for them and which ones for the multidisciplinary team … also, if the physio can access some of the cases sooner, they can **inform the organisation** about what the client is capable of, where something does not appear to be right or if the client is not progressing."* (Case 2, Occupational Health Nurse 4)

*"We definitely need someone who is flexible, who can challenge the consultants decisions and confident enough **to make recommendations to the organisation,** even when the manager may disagree with you."* (Hospital B, Case 2, Occupational Health Nurse 4)

Main descriptions:
Clinical work
Organisation wants and needs
Pressures of the organisation
Clinical proficiency
Inform the organisation
To make recommendations to the organisation

Preliminary thoughts (what is this about)
Having a clinical role within the occupational health departments
Having an organisational role within the organisation
Having a dual responsibility of clinical competence and making recommendations for the organisation

Initial theme:
Balancing clinical and organisational needs

In the example below we see the initial theme 'work-specific rehabilitation' emerging from two stakeholder groups (that is, occupational health clinicians and clients). This is an example where two stakeholder groups are discussing the same issue and illustrates how the data is then interconnected across the transcripts until a coherent account becomes apparent.

Interview transcripts

*"Occupational physios focus on **developing conditioning programmes,** in addition to their therapeutic exercises, which is a massive area for the service to provide. This **specific type of practice** provides clients with the endurance they need to do their jobs."* (Case 1, Occupational Health Nurse 5)

"… sometimes physios working in occupational health departments can be seen as only doing musculoskeletal assessments, yet their workload is not just musculoskeletal, they must know a person's job tasks and ***develop a specific rehabilitation programme*** *that can help them stay in their job. They have to initiate, together with the multidisciplinary team, a* ***suitable work conditioning programme.*** *So it's easy to see that their role is more than just strengthening muscles and loosening joints."* (Case 1, Occupational Health Nurse 3)

"I don't really have much knowledge about what a physiotherapist does, but I think in occupational health, the physiotherapist would give you ***specific exercises for a particular injury*** *that can build you up for your job and general ones that you can do at home."* (Case 2, Client 4)

"I think it's better getting a physio who can do ***work rehabilitation,*** *which is maybe better that getting a physio who can only do musculoskeletal work."* (Case 2, Occupational Health Nurse 3)

"If physios want to work in occupational health, they should be able to do more than just assessments and ***integrate injury reduction and safety programmes in their work.*** *They must be able to prove that they can cope and be versatile to work in the team and should not work by themselves in isolation …"* (Case 2, Occupational Health Nurse 2)

"I've been to outpatient physio and had exercises taught to me before, but occupational health physio ***helps you to return to work by getting all your body functions working again*** *as best as they can work. The [occupational health] physiotherapist gives you specific exercises and activities to do, which you can even do while working so that you don't end up with further problems."* (Case 1, Client 5)

"The physio in occupational health gives you ***specific exercises and management plans,*** *not the general ones we usually get and the ones over the internet, and this helps with strengthening the muscles."* (Case 1, Client 3)

Main descriptions:
Developing conditioning programmes
Specific type of practice
Develop a specific rehabilitation programme
Suitable work conditioning programme
Specific exercises for a particular injury
Work rehabilitation
Integrate injury reduction and safety programmes in their work
Helps you to return to work by getting all your body functions working again
Specific exercises and management plans

Preliminary thoughts (what is this about)
Focus on reducing injuries and promoting safety at work
Providing specific exercises and rehabilitation for work

Initial theme:
Work-specific rehabilitation

The above process was continued across all transcripts. Once the initial thematic framework was formed, I then began the process of indexing by reading all the data, not just those I selected for the thematic framework. This is a process to improve and refine the initial themes until the whole picture emerged and to ensure that the themes were grounded in the participants' descriptions.

Following the indexing process, I began to chart the themes using a spreadsheet. In this process I began synthesising them into a main (final) theme. Below is an example of the process of charting across the initial thematic framework.

Initial themes	Final theme
Balancing clinical and organisational needs	Agent to organisation and client
Enhancing the influence of occupational health	
Employer needs assessment	
Organisational analysis and development	
Linking staff needs to the organisation	
Promotion of occupational health within the organisation	
Functional capacity evaluations	Specific vocational rehabilitation
Job demand analysis	
Work-specific rehabilitation	
Support for injuries at work	

The initial themes became sub-themes and descriptions from participants were 'lifted' from the original transcripts and organised under the appropriate sub-theme to which they were related. Examples of this are illustrated below.

Theme: Agent to organisation and client
Sub-theme: *Balancing clinical and organisational needs*

"Occupational health physios need to work in such a way that they can do their clinical work and understand what the organisation wants and needs. Too often, physios adapt a primary care contact role right from the start, and this does not always get the backing of the doctors. They need to work in consultation with the team and understand the pressures of the organisation."
(Case 1, Occupational Health Doctor)

"Physios in occupational health must have a certain level of skills and competency because the work also involves getting staff back to work. Occupational health physiotherapists have a much higher level of autonomy than most of the other hospital-based roles and are required to show clinical proficiency and independent working. There needs to be an understanding from the beginning how the system works and be able to help staff get back and recommend to the referring managers how to support them. Physios can't only treat the pain."
(Case 1, Occupational Health Nurse 3)

Theme: Specific vocational rehabilitation
Sub-theme: *Work-specific rehabilitation*

"Occupational physios focus on developing conditioning programmes, in addition to their therapeutic exercises, which is a massive area for the service to provide. This specific type of practice provides clients with the endurance they need to do their jobs." (Case 1, Occupational Health Nurse 5)

"… sometimes physios working in occupational health departments can be seen as only doing musculoskeletal assessments, yet their workload is not just musculoskeletal, they must know a person's job tasks and develop a specific rehabilitation programme that can help them stay in their job. They have to initiate, together with the multidisciplinary team, a suitable work conditioning programme. So it's easy to see that their role is more than just strengthening muscles and loosening joints." (Case 1, Occupational Health Nurse 3)

"I don't really have much knowledge about what a physiotherapist does, but I think in occupational health, the physiotherapist would give you specific exercises for a particular injury that can build you up for your job and general ones that you can do at home." (Case 2, Client 4)

"I think it's better getting a physio who can do work rehabilitation, which is maybe better that getting a physio who can only do musculoskeletal work." (Case 2, Occupational Health Nurse 3)

"If physios want to work in occupational health, they should be able to do more than just assessments and integrate injury reduction and safety programmes in their work. They must be able to prove that they can cope and be versatile to work in the team and should not work by themselves in isolation …" (Case 2, Occupational Health Nurse 2)

"I've been to outpatient physio and had exercises taught to me before, but occupational health physio helps you to return to work by getting all your body functions working again as best as they can work. The [occupational health] physiotherapist gives you specific exercises and activities to do, which you can even do while working so that you don't end up with further problems." (Case 1, Client 5)

"The physio in occupational health gives you specific exercises and management plans, not the general ones we usually get and the ones over the internet, and this helps with strengthening the muscles." (Case 1, Client 3)

Finally, the core concepts were developed by mapping and interpretation of the salience and dynamics issues from the multiplicity of evidence in the final Chart (spreadsheet). An example is provided of how the 'Risk Work' core concept was mapped, interpreted and developed.

Final theme	Sub-themes*	Refined thoughts	Core concept
Agent to organisation and client	Balancing clinical and organisational needs		
	Enhancing the influence of occupational health	Translating risk information into difference contexts for different audiences	
	Employer needs assessment		
	Organisational analysis and development		
	Linking staff needs to the organisation	Minimising risk in practice	**Risk work**
	Promotion of occupational health within the organisation		
Impartial approach	Sympathetic and impartial approach	Supporting organisation/clients make informed choices, or preventing undue harm after receiving risk information	
	Client education and communication		

*****including the quotes from the different stakeholders in the project